ECONOMIC REVIEW

April/May 1979

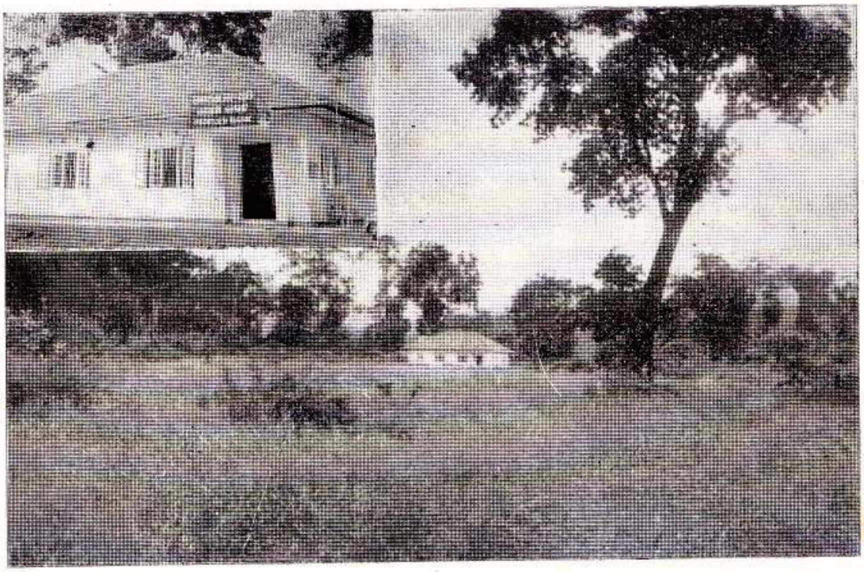
RURAL CREDIT

A People's Bank Publication

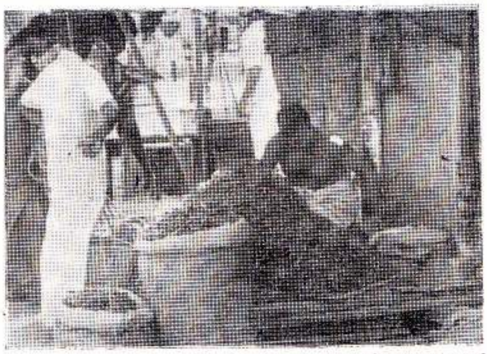
RURAL CREDIT

Over 90 percent of the Credit to the rural sector was being taken from non-institutional sources in 1957. The attempts to develop a strong rural credit structure, through Co-operative Credit Societies had not been quite successful.

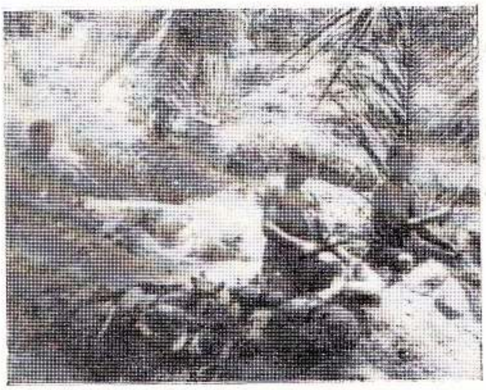
The first systematic and planned effort in the country to spread banking in the rural sector and take formal credit to the peasant farmer and small trader was pioneered by the People's Bank, in 1961, which adopted many innovative approaches and consequently evolved systems and procedures suited to the actual needs of the rural sector. It opened branches in the most remote areas and went further by inaugurating a scheme of Rural Banks in 1964. Its facilities were soon to touch various economic activities of the "small man", which no established bank had hitherto considered worth financing. Illustrated on this page are a sampling of this activity.



A People's Bank branch set up in Wilgamuwa, about 25 miles off Mahiyangana, where the living standards of the people were depressed and even accessability into the area was a problem.

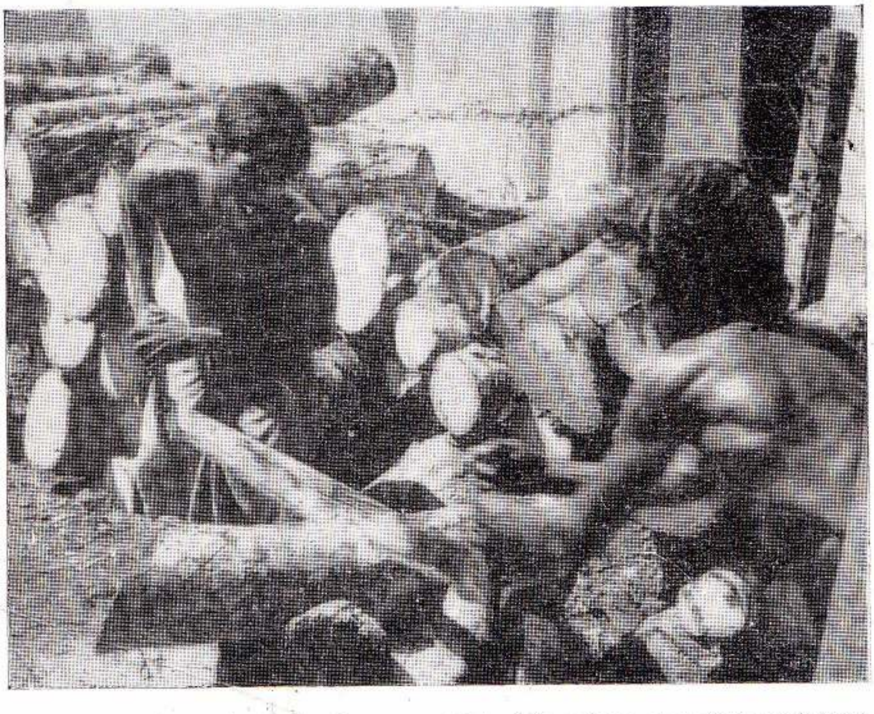


The village fair or *Pola* where non-institutional credit was the order of the day has also had access to formal credit through the banks daily loans or *athamaru* scheme.

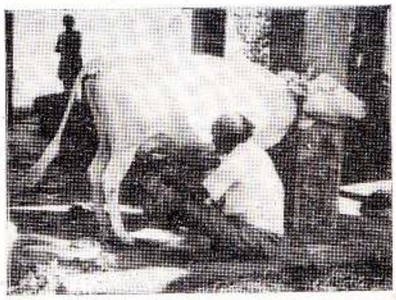


The coir industry, one of the most widespread cottage industries, has also benefitted from formal credit with bank finances being provided to those traders who purchase the fibre from these coir weavers.

The rural artisan and traditional craftsman came into the orbit of formal credit for the first time when they received Bank loans. Above craftsmen who have benefitted from People's Bank loans.



Another area where the transactions were strictly informal was that of the traditional firewood depot where wood was provided for fuel requirements. Even this sector has taken advantage of the formal bank credit facilities that have come their way.



Dairying is another form of activit receiving much encouragement in th rural sector today. Much of the forn credit to this sector has been channel through the People's Bank.

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COLUMNS

SPECIAL REPORT

FEATURES

BOOK REVIEWS

NEXT ISSUE

- Tourism—The growth of a new industry
- Gold, the IMF and the Third World
- A Master Plan for development of Sri Lanka's tea industry

COVER

Designed by Palitha Kannangara

THE ECONOMIC REVIEW is intended to promote knowledge of and interest in the economy and economic development process by a many sided presentation of views & reportage, facts and debate.

THE ECONOMIC REVIEW is a community service project of the People's Bank. Its contents, however, are the result of editorial considerations only and do not necessarily reflect Bank policies or the official viewpoint. Signed feature articles also are the personal views of the authors and do not represent the institutions to which they are attached. Similar contributions as well as comments and viewpoints are welcome.

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Diary of Events

MARCH

1 The Ministry of Public Administration and Home Affairs increased the combined allowances paid to state officers to cover cost of board and lodging when they are out of station, while travelling allowances were also revised. The increase in Government expenditure for 1979 on account of these revisions are estimated at Rs. 26 million.

3 Iran's new government, fighting economic chaos and constitutional confusion, devalued its currency and pledged that Iran will repay all its foreign debts, stated a *Reuter* report.

5 China signed a £7 billion economic co-operation agreement with U.K. which will pave the way for major U.K. contracts in China's industrialisation programme. The five year agreement is backed by a new £2.5 billion line of credit in dollars, supported by the Export Credit Guarantee Department of U.K., reported the London *Financial Times*.

The first drawing under the International Monetary Fund's Extended Fund Facility (EFF) amounting to SDR 40 million (Rs. 780 million) was made by Sri Lanka. The EFF approved in January this year, permits Sri Lanka to borrow upto SDR 260.3 million (Rs. 5,206 million) over a period of three years.

6 Parliament amended the Monetary Law Act to safeguard the country's coinage from melting and mutilation; and in these amendments also prescribed a fine of Rs. 3,000 or imprisonment not exceeding two years for such offences.

8 About 415 million Asians live in absolute poverty and the living conditions of 355 million have degenerated during the past two decades, an International Labour Organisation official told an ESCAP conference in Manila. He said the material conditions of life for large numbers of rural people in Asia are worse today than one or two decades ago, according to *Reuter* reports.

The Group of 24 meeting in Washington warned that the slow growth in world trade, intensified protectionist measures by industrial countries and deterioration in the terms of trade will increase the poorer non-oil producing countries current account deficit to $38 billion this year. They were also concerned that the GATT trade talks in Geneva had done very little to accommodate the special problems of poorer countries, particularly in providing preferential treatment for their industrial products, reported the London *Financial Times*.

12 The State Timber Corporation, revised its prices of all types of timber. In May 1978 prices were raised by 50 percent and the current increases range from 40 percent to 280 percent over these prices. The revision was necessary to cover rising costs of timber extraction and the losses sustained by the Corporation.

The Banque de L' Indochine et de Suez (Indo-Suez), the largest private bank in France, commenced operations in Sri Lanka through its Colombo branch.

13 At a meeting of the European Committee (EC) in Paris all member-countries, expect the United Kingdom, agreed to set up a European Monetary System with immediate effect. The EMF is expected to eliminate more extreme fluctuations in exchange rates, and enable the Committee as a group to tackle the problem of inflation.

14 The State Gem Corporation is to import Rs. 10 million worth of gold to help build Sri Lanka's jewellery export trade, stated a press report.

China has agreed to supply Sri Lanka with 80,000 metric tons of quality rice this year, at prices three percent below the prevailing world market price, in terms of the trade protocol between the two countries concluded in Peking earlier this month, Sri Lanka's Food Minister stated on his return to Colombo.

15 The Danish Government has agreed to give Sri Lanka 220 million kroner (Rs. 657.8 million) worth of aid in the next three years, following discussions between Sri Lanka's Finance Minister and the Danish Ministers of Finance, and of Overseas Co-operation. Denmark has also indicated that it would join the Sri Lanka Aid Group as a full-fledged member and was also prepared to assist Sri Lanka in an integrated rural development project and other specific sectors.

Sri Lanka's Rs. 2,300 million Urea fertilizer factory at Sapugaskanda is expected to commence production by January 1980, the Fertilizer Manufacturing Corporation's chairman told the press. The factory will produce 310,000 tonnes of urea per year, using naptha—a by-product of the Petroleum Corporation's refinery.

19 Export quotas for ready-made garments granted to Sri Lanka by the EEC cannot be used by and are not available to any industry which comes under the jurisdiction of the GCEC. Official sources stated that these industries have to find their own market for their products, according to press reports.

The EEC will give assistance to the value of about Rs. 300 million, particularly for downstream works and agricultural settlements in the Mahaweli Development area, following discussions with Community officials and Sri Lanka's Minister of Finance, an official spokesman told the press. The EEC will also support Sri Lanka's industrial investment effort by helping to bring potential investors from the EEC area into Sri Lanka.

22 A law for the establishment of the Mahaweli Authority of Sri Lanka was passed by Parliament. The new Authority would be responsible for the implementation of the Mahaweli Ganga Development Scheme.

24 Developing nations have demanded from the European Common Market that it should impose import curbs to protect home industries against competition from cheap poor nation products only if it simultaneously restricts imports from all larger suppliers. Such a step would in effect hurt imports of the Community's developed country partners. If the EEC rejects the demand it will appear to discriminate against the Third World, reported the Bombay *Economic Times*.

27 The world's major oil exporters decided to raise the price of oil by almost 9 percent from April 1, and also declared themselves free to increase charges even further if anyone was willing to pay, stated a *Reuter* report from Geneva.

29 Two aid agreements were signed by Sri Lanka and the Federal Republic of Germany; one providing for a commodity loan of DM 12 million (Rs. 98 m.) and the other for a loan of DM 26 million (Rs. 214 million) for the Kirindi Oya Irrigation Scheme.

30 The dollar has continued to strengthen against most major currencies in recent weeks, extending the rally that began at the start of the year. It appreciated by almost 3 percent against the yen, reaching a nine month high of 209 yen in mid-March. The dollar was also up Marginally against the mark and most other European Monetary System currencies. It declined by more than 1 percent against the pound sterling and by more than 2 percent against the Canadian dollar, according to the *World Financial Markets Review*.

31 The Government has agreed to raise the guaranteed price of Green leaf tea from 70 to 85 cents per pound, according to press reports. The new price was expected to benefit about 125,000 families engaged in tea production on smallholdings.

RURAL CREDIT

Need, Availability, Issues, Directions

Credit to the rural sector is a complex issue. It is quite a different proposition to that of lending to large-scale industrial or commercial enterprises or large-scale agriculture. Large enterprises have adequate collateral, their economic viability is easily determined, they can be relied on to use the funds in a profitable manner, pay their interest commitments and return the capital lent. Further, commercial banks have had years of experience in lending to such enterprises and the administrative costs of such lending are low as they deal with a small number of large borrowers.

On the other hand, the crying need to provide credit to the smaller farmers is counterbalanced by the complex issue of whether credit should be given to farmers with less than viable units. The argument runs that credit given to these farmers cannot be recovered since, with their very low incomes, they are likely to use the additional output too for consumption. The determination of who are viable farmers poses considerable difficulties. The viability of a farm depends not only on its physical size but soil fertility, availability of irrigation, cropping patterns and rental arrangements. Once a viable size is determined by regions inthe country, the exclusion of non-viable farms may result in most farmers being outside the umbrella of institutional credit as a large proportion of farms is small.

The conditions of the rural peasantry in much of Asia has been tellingly described as that of being "up to the neck in water". A crop failure or sudden illness could result in most of the peasantry sinking. The village money-lender, who is usually pictured as usurious; the boutique keeper who provides daily provisions at perhaps very high hidden interest charges; the landlord who exacts commitments and conditions from his indebted tenants; they are all essential in this context where the peasant farmers have no other means of obtaining their daily consumption needs, cultivation costs and occasional unexpected expenditures.

A livelihood derived by the cultivation of a small holding which hardly gives a subsistence income is indeed a poor base from which most rural farmers can hope to move out of their deprived circumstances. On the one hand, they do not have the capital required to adopt new practices and the necessary inputs. Output in this 'traditional' sector has become essentially a function of land and labour; and very rarely is there an accumulation of capital as in the 'modern' or 'industrial' sector. On the other hand, the uncertainty of untried methods leads to a rational aversion of risks and almost a resistance to change and a continuation of the more certain but less productive methods. So poverty breeds poverty in rural areas.

And does this not answer the much asked question — Why has rural growth been slow and comparatively rural poverty been increasing? Most of the low income groups in the rural areas depend heavily on agriculture for their livelihood. They generally must contend with a limited access to natural resources. More frequently they suffer because they have little access to technology and services that could help raise their productivity. In many cases vested interests operate to ensure not only that the benefits of productive activity are distributed inequitably, but that the poor are denied access to inputs, services and organisations which would allow them to increase their productivity.

Thus the rural sector, is characterised by a large number of small farmers with agricultural holdings often too small to generate a marketable surplus or a livelihood much above subsistence. The predominant role played by informal lenders like money-lenders, boutique keepers, traders, wholesale procurers of produce and landlords; the lack of a well-developed institutional set-up to channel credit and other inputs; the lack of effective farmer organizations; the procedural-bound nature of government and other institutional sources of inputs are among the other characteristics of this sector which render the provision of adequate institutional credit at reasonable costs and in time a complex issue.

Informal Lending

The rural sector of Sri Lanka has traditionally depended on informal non-institutional sources for its needs of credit. Friends, relatives and landlords who give credit to farmers at times of need may sometimes lend free of interest or at a low rate of interest. This may be because a reciprocity is assumed with the borrower perhaps lending at other times or the borrower helping in non-financial ways such as by assisting in farming operations or in the domestic chores of the creditor. Lending on a personal basis may have no reciprocity but be part of either the social and kinship relations in the village or be a facet of the patron-client relations which characterize traditional village society.

For instance, the interest rate structure that was revealed in the rural sector when the Central Bank conducted its survey of Rural Credit and Indebtedness in 1969 is most interesting. While usurious rates of interest of 175 percent per annum or more were charged, such rates applied to less than a quarter of borrowings and were mainly for loans of less than Rs. 5,000. A very large portion of loans was free of interest. About 36 per cent of loans was at zero interest and nearly 50 percent of interest-free loans was household debts below Rs. 2,000. These facts bespeak of a highly personalised informal rural credit market. However, some loans which are considered interest-free may have had an element of hidden interest when they were part of a transaction in kind.

Informal or non-institutional credit sources have several advantages to the villager and small farmer. Little or no collateral is asked for and repayments can be adjusted to times convenient to the borrower. He need not go through elaborate procedures and form filling. Informal credit sources give credit for consumption purposes like purchase of consumer goods and for expenditure at times of personal contingencies. Informal credit is largely credit 'with no questions asked'.

The convenience, flexibility and accessability of informal credit sources account for the greater dependence on them in the rural sector. Despite efforts to increase institutional lending, owing to these advantages, all surveys of rural credit and indebtedness disclose the predominance of non-institutional sources of credit.

Why Credit

A fundamental question must be posed before the discussion of the sources of credit, the programmes devised to serve this sector and the problems encountered by institutional credit. Why credit to the rural sector ?.

Credit is often needed for normal consumption requirements of the rural sector owing to the low levels of income, the lack of savings and the discontinuous nature of income flows in an agricultural economy. Often farmers borrow continuously for their living expenses and repay their debts at harvest time. Unexpected expenditure on illnesses, religious festivities, family occasions like marriages as well as disasters like crop failure tend to increase indebtedness as no surpluses from current income are generally available for such expenses. Indebtedness, with its consequent interest costs, could itself be a factor in increasing indebtedness.

Credit for agriculture has become more important in recent years owing to new technological developments which have increased production costs several-fold. The high yielding varieties which generate yields several times those of traditional varieties require the use of costly inputs like fertilizers, insecticides and weedicides. Farm machinery and equipment like tractors and sprayers require medium-term capital, while long-term capital requirements for irrigational improvements like tube wells are other needs. Today, therefore, one could say that the improvement of agricultural practices is one of the most pressing modern reasons for increased credit to the rural sector which is predominantly a small farm sector. But the question why rural credit goes far deeper than that — it takes us to the crux of the entire problem of indebtedness itself.

Degrees of Indebtedness

There is no available measure of the indebtedness that prevailed in Sri Lankan village communities before the introduction of the plantation economy and the encroaches of commercialism. However, from available qualitative descriptions we could assume that the village level subsistence economy, based largely on barter transactions and exchange, would have had a certain degree of indebtedness tied to the village socio-economic structure. The integration of Sri Lanka as a dependent part of a world economy and the consequent spread of commercial links throughout the country led to the predominance of the plantation sector and the disruption of the traditional rural economy. Parallel to the disruption of the hitherto largely self-sufficient subsistence economy occurred the growth of indebtedness.

The traditional socio-economic structure in Sri Lanka provided a mutual set of supporting relations for individuals within the system and a considerable amount of economic activities were based on exchange governed by this matrix of mutual obligations. With the breakdown of this structure, due to increased commercialisation, money transactions entered the scene and the earlier obligations were now performed under sanctions of law administered by officials. The growth of commercialism combined with very small-holdings and an increase in population subsequently gave rise to the growing problem of indebtedness in the Sri Lankan countryside.

The level of rural indebtedness can be seen in the context of the small farmer and the land tenure systems. The average paddy holding in Sri Lanka is less than two acres and according to calculations made by Yogaratnam and Schickle, most paddy farms under two acres tend to be non-viable in that they could not meet incomes for family needs. (See box at right). There is a tendency for farm sizes in certain areas to grow whilst as a parallel feature other farms get smaller. This process gives rise to the twin problems of a tendency to landlordism as well as fragmentation and even worse the growth of landless labourers. This fact explains one reason why the farmer is driven to an increasing debt spiral as indicated by several studies.

Several rural economic surveys undertaken between 1936 and 1948 disclosed a high level of indebtedness and high interest rates prevailing in these areas. Another survey undertaken in 1950/51 when Korean boom conditions were prevailing indicated an improvement in the rural indebtedness situation. But the first systematic collection of data on credit conditions in the rural sector was the Survey of Rural Indebtedness undertaken by the Department of Census and Statistics in 1957. (See box below) This survey disclosed that 54 percent of all rural families and 60 percent of agricultural families were in debt. For the first time information had been obtained on the sources of credit and it was found that less than 8 percent of credit was from institutional sources. In 1969 the Central Bank conducted a Survey of Rural Credit and Indebtedness, but this survey was carried out under changed circumstances as the People's Bank had been established in 1961 with the specific objective of serving the credit needs of the rural sector. The sources of credit for farmers indicates an interesting profile, as seen in Table I (on page 6), derived from the Rural Indebtedness Surveys of 1957 and 1969.

It is seen that a large percentage of the credit disbursements are from non-institutional sources, the most important source being friends and relations, an outcome of the extended family system in Sri Lanka. Further, there is considerable evidence that a high percentage of funds borrowed from these sources are free of interest as these transactions arise from a web of mutual family and other obligations and not from impersonalised business transactions. An important source of credit of a semi-professional nature were those of money lenders.

Government-sponsored Credit Schemes

With the recognition of indebtedness as a problem, several Government-sponsored institutions have attempted to intervene to alleviate the condition of the peasant. The most significant of these has been the Co-operative Credit institutions which have been in existence since 1912. The Government began first using this scheme for institutional credit for peasant farmers from 1947 whereby credit was channelled to farmers and administered on an islandwide basis by the Land Commissioner. During the five-year period 1952 to 1957 this scheme of channelling credit was carried out by the Department of Food Production. During this early period disbursement of credit grew steadily and,

SIZE OF PADDY LAND HOLDINGS, SRI LANKA

The majority of producers in the agricultural sector are those who have small holdings. Thus according to the Census of Agriculture carried out in 1962, as much as 95.8 percent of holdings in the entire agricultural sector was less than 10 acres. The small-scale of operation is most evident in paddy production in comparison with that of plantation crops. Data collected by the Department of Agrarian Services in 1970 indicated that in the case of paddy two-thirds of producers had holdings of less than 1 acre but they operated only about one-fifth of the total land under paddy. The average size of a cultivated plot of these two-thirds of producers was only about half an acre. Further, according to the same source, three-fourths of paddy land in the Island were in holdings of less than 5 acres. These figures are confirmed by other district level studies. For instance an Agrarian Research and Training Institute study conducted in Hambantota in 1974 indicated that the average extent of highland operated by paddy cultivators was 1.9 acres while in two other districts studied (namely, Polonnaruwa and Kandy) it was found to be 2.2 and 2.1 acres respectively.

Further, the Paddy Lands Register of 1970 gave the number of tenant cultivators as 318,459 cultivating 308,459 acres and owned by 239,411 land owners. The landlords apparently held only small parcels of land. Of the 800,000 owners of paddy land only 3.6 percent had more than 5 acres.

Most recent reports indicate that there were 450,929 tenant cultivators who worked paddy fields of half an acre each; while there were about 7,000 tenant cultivators who worked fields of 10 acres and over. (The Government is introducing legislation to restrict the extent a tenant cultivator could work to five acres, because it was felt that anything over five acres was too large for a single cultivator to make maximum use of for paddy cultivation).

EARLY CONDITIONS OF RURAL INDEBTEDNESS

Information of credit conditions in the rural sector prior to 1957, when the first National Survey of Rural Indebtedness was undertaken is very scanty. Several rural economic surveys undertaken between 1936–1948 disclose a high level of indebtedness and high interest rates. The proportion of indebted families was very high in most districts surveyed. As much as 75 percent of the families were indebted in one district. The average indebtedness ranged between about 30 to 90 percent of average annual income and a very high proportion of families had an excess of expenditure over incomes. Contrary to the general impression that a high proportion of loans in the rural sector is for unproductive purposes, a very large proportion was for agricultural expenditure.

Another survey undertaken in 1950-51, when Korean boom conditions prevailed, indicated an improvement in the position of rural indebtedness. No doubt largely due to the improvement in agricultural prices at that time, the proportion of indebtedness among families had fallen. While the size of debt had increased, its proportion to incomes had declined and the rates of interest had increased. Like in the former surveys, the proportion of loans for productive purposes was quite high—53 percent of total loans. Both surveys did not obtain data on the sources of credit but the limited credit operations of co-operatives which were the main source of institutional credit implies a high dependence on informal borrowers.

TABLE I DISTRIBUTION OF RURAL CRERDIT BY SOURCES, SKI LANKA: 1957 AND 1969

Source		Percent of Total Borrowing			
		1957		1969	
I. Institutional Sources :		7.8		25.0	
of which:	government		2.6		2.7
	cooperatives		4.1		9.7
	commercial banks		1.1		6.7
	other financial institutions		—		5.9
II. Non-Institutional Sources		92.2		75.0	
of which:	professional money-lenders		15.5		11.0
	semi-professional money-lenders		—		17.8
	boutique keepers		7.4		14.3
	merchants and commission agents		4.1		1.5
	landlords		8.0		0.7
	relatives and friends		44.2		25.8
	others		13.0		3.9
	Total	100.0	100.0	100.0	100.0

Sources : Department of Census and Statistics, *Survey of Rural Indebtedness* 1957 Central Bank of Ceylon, *Survey of Rural Credit and Indebtedness* 1969.

significantly, the repayments were satisfactory; a contrast to later periods.

In 1957 the credit scheme was handed over to the Department of Agrarian Services. By 1962/1963 the total credit disbursed stood at Rs. 193 million whilst the amount in default was 9.4 percent of this amount. During this time a survey by the Department of Census and Statistics indicated that roughly 30 percent of the co-operatives were defaulters and hence not eligible for further loans and this gave rise to a decline in the volume of credit.

A Committee appointed in 1968 tied the Guaranteed Price Scheme for paddy purchasing to co-operative societies and thereby indirectly to the credit disbursement system. It was felt that by this process the peasant farmers who were members of co-operatives could obtain adequate credit. Other aspects of the recommendations of the Committee were compulsory recovery of share capital instalments from payments owed to members

RURAL INDEBTEDNESS IN 1957

The survey of Rural Indebtedness undertaken by the Department of Census and Statistics in 1957 was the first systematic collection of data on credit conditions in the rural sector. This survey disclosed that 54 percent of all rural families and 60 percent of agricultural families were in debt. The average debt per indebted family amounted to Rs. 790 for all families and Rs. 753 for agricultural families.

For the first time information was obtained on the sources of credit. Less than 8 percent of credit was from institutional sources. Co-operatives were the most significant source of institutional credit and accounted for over half of institutional credit or 4.1 percent of total credit. The distribution of credit sources is given in Table I above.

Informal sources of credit were varied. Relations and friends were the sources for as much as 44 percent of total debts, while landlords, who became less important subsequently, contributed 8 percent of total debts. Boutique keepers, traders, and commission agents accounted for 11.5 percent of total credit. The bulk of informal credit is therefore from non-professional sources with professional money-lenders accounting for only 15.5 percent of total credit.

Credit regional differences in the sources of credit were also observed. Co-operatives were significant sources of credit in Kandy (24.4 percent), Batticaloa (19.2 percent) and Polonnaruwa (24.4 percent) districts while less than 3 percent of total credit was from them in Colombo, Kalutara, Matale, Matara, Hambantota Chilaw, Ratnapura and Kegalle districts. The uneven development of co-operatives in the different districts at this time perhaps accounts for this.

Relations and friends were a conspicuously large source of credit nationwide. Over 50 percent, of credit in the districts of Jaffna (55 percent), Vavuniya (59 percent), Trincomalee (59 percent) and Kegalle (61 percent) was from them.

Landlords were an important source of credit in Matale (22 percent), Nuwara Eliya (26 percent) and Batticaloa (35 percent) districts. Boutique-keepers were significant credit sources in Puttalam (41 percent), Anuradhapura (45 percent) and Ratnapura (31 percent) districts. Professional money-lenders were important credit sources in the Colombo (28 percent), Hambantota (32 percent), Chilaw (23 percent), Anuradhapura (27 percent) and Badulla (24 percent) districts. Itinerant traders were particularly significant lenders in the Chilaw district (29 percent).

The purpose of loans was classified into two broad categories of productive use and non-productive use. Productive loans accounted for 56 percent and unproductive loans for 44 percent of total debts. The productive use category included loans for cultivation, livestock trade, construction and purchase of vehicles, while the non-productive category included expenditures on food, medicine, ceremonial functions and the repayment of debts.

A significant feature of the purposewise distribution is that trade and construction were the main items for productive borrowing and accounted for about 30 percent of loans. Only 10 percent of loans were for cultivation and 12 percent for other agricultural loans. Commenting on the small proportion of agricultural loans the report said "these figures would indicate the inadequacy and unsuitability of the present credit system to meet the basic needs of the peasant sector of the economy, particularly because of the present heavy emphasis on ownership rather than on productive capacity".

Interest-free loans are an interesting and unique feature of informal lenders. They are mainly the smaller loans, average size of which have been about Rs. 223. The 1957 data disclosed that while 13 percent of the number of loans was interest-free only 6 percent of the borrowed amounts were in this category. Over half the borrowed funds were in the interest group of 6-18 percent. About 22 percent of loans or 15 percent of the amount borrowed were at over 18 percent (See Table 2 below),

TABLE 2
RATE OF INTEREST IN RURAL CREDIT MARKET 1957 and 1969

Rate of Interest per Annum	Percentage of Total Borrowings	
	1957	1969
No interest	6.2	34.4
Less than 6 percent	7.7	2.2
6 to less than 12 percent	24.4	32.5
12 and above*	42.0	30.9
Unspecified	16.8	—
Other arrangements	2.9	—
Total	100.0	100.0

*In 1957, 21.8 percent of loans was above 18 percent while in 1969, 19.5 percent of loans were 21 percent and above.

Source: Department of Census and Statistics, *Survey of Rural Indebtedness*, 1957; Central Bank of Ceylon, *Report of the Survey of Rural Credit and Indebtedness*, 1969.

from the Guaranteed Price Scheme; granting of further loans to defaulting co-operative societies for disbursement to non-defaulting members and an undertaking to be given by the borrowing members that they would sell an adequate part of their produce to the society to cover the loans taken by them.

Although these recommendations were implemented and credit was thereby liberalised the implementation aspects as regards to recovery were not followed through. As a consequence loans outstanding continued to rise.

Conditions in Rural Sector in 1961-62

The Department of Agrarian Services conducted a more restricted sample survey on rural credit in 1961-62. Cultivators in debt appeared to have decreased from 50 percent in 1957 to about 41 percent in 1961-62. The share of co-operative credit in total credit had risen from 4.1 percent in 1957 to 33 percent in 1961-62. But significantly non-institutional sources still provided about two-thirds of total credit. There was a conspicuous absence of landlords as a category of lenders due to the Paddy Lands Act of 1958 which prescribed maximum rates of interest on loans in cash and kind.

Rural Credit in 1969

The Central Bank conducted its Survey of Rural Credit and Indebtedness in 1969 under changed circumstances. The People's Bank had been established in 1961 with the specific objective of serving the credit needs of the rural sector and a scheme of rural banks under which selected co-operatives performed limited banking functions was inaugurated in 1967. The quantum of credit to the rural sector had increased substantially under the Government's Extended Credit Scheme of 1965 and the New Agricultural Credit Scheme introduced in September 1967. These significant incursions of financial institutions into the rural sector reflected in the share of credit from the institutional sector increasing from less than 8 percent in 1957 to about 25 percent by 1969. Credit from co-operatives and commercial banks showed a significant increase and the new category of other financial institutions accounted for nearly 6 percent of credit. The detailed breakdown of the sources of credit is given in Table 1.

Despite these developments in institutional credit these sources still accounted for only 25 percent of total indebtedness. Money lenders had increased their share of lending from about 16 percent (in 1957 and 1961-62) to nearly 29 percent. Boutique keepers accounted for 17 percent of total debts. Relatives and friends were once again an important source of credit and accounted for a quarter of total debts but their share of lending had declined significantly from the 1957 level. Although landlords had reappeared as a category of lenders they contributed less than one percent of total credit.

The purpose-wise classification of borrowing disclosed that 32 percent was for consumption of which a little over half was for food. About a third of borrowings was for capital expenditure of which nearly half was for housing. Of the thirty percent of borrowings for current expenditure, about two-thirds were for Agriculture and Trade.

Several other interesting features of rural credit emerged from the data of this survey. Most of the credit for housing, agriculture and trade was provided by institutional sources. The rural sector depended almost entirely on the non-institutional sector for consumption and current expenditure. Boutiques, landlords and commission agents gave credit almost entirely for food and household expenditure. Commenting on this the Report said:

"This pattern of indebtedness has revealed that the emphasis placed by institutional credit agencies on credit for purposes of production has compelled the rural borrower to turn to the non-institutional lender to meet his credit needs for consumption purposes".

In 1967 a new credit scheme known as the New Agricultural Credit Scheme (see box on page 8) came into being recognising three factors:

1. Rising defaults.
2. Misuse of loans by borrowers.
3. Misuse of loan repayments by the societies.

The result of these changes was that future credit was to be channelled through the People's Bank which would have a supervisory function over the co-operatives. This new scheme was operated with a Central Bank guarantee of upto 75 percent of loans in default. The rate of interest paid by cultivators under this scheme was 9 percent and credit was to be supervised by the extension workers, the Cultivation Committee and the Committee of the Co-operative Society. A part of the loan was paid in kind, namely seed paddy, fertilizer, agro chemicals and barbed wire. Even under this system both utilization and repayment continued to decline.

The Comprehensive Credit Scheme of 1973 envisaged that the total credit requirements of the peasants would be given through the Co-operative Rural Banks and branches of the Bank of Ceylon located in Agricultural Productivity Centres.

A problem that has always faced the institutional credit programmes is the high rate of default. The overall trend of both the New Agricultural Credit Scheme and the Comprehensive Rural Credit Scheme appears to have been the low rate of recovery. The reasons for default, as seen in Table 3, are also very revealing.

The credit granted to the peasant sector has increased steadily since the start of the various schemes. Thus the percentage increase by 1975/76 from a base year of 1947/48 was 2,310 percent which works out to an annual rate of 81 percent.

TABLE 3 REASONS FOR DEFAULT

	Case of Default	*% of Defaulters*	*% of Loans Overdue*
1.	Crop failure	26.4	32.8
2.	Low income	17.2	16.2
3.	No intention to repay	12.6	14.6
4.	Illness/death	9.9	8.8
5.	Indifference of Co-op. Officials	8.8	6.3
6.	Malpractices of Co-ops.	7.8	5.0
7.	Heavy expenditure (legal, ceremonial etc.)	2.3	2.1
8.	Considered loans may be written off ..	2.0	1.6
9.	Misuse of loans	1.9	1.7
10.	Considers loans to be outright grants ..	1.7	1.7
11.	Lack of irrigation facilities	1.5	1.2
12.	Heavy capital expenditure	1.5	0.7
13.	Malpractices of government officials ..	1.6	0.8
14.	Heavy indebtedness	1.2	1.3
15.	Unemployment	0.4	0.2
16.	Political interference	0.4	0.3
17.	Withdrawal of facilities to surrender rice ration books	0.2	—
18.	Others	6.2	4.7
		100.0	100.0

Source: *Central Bank of Ceylon.*

NEW AGRICULTURAL CREDIT SCHEME SINCE 1967

An important stage in the development of rural credit was reached in September 1967, when the new Agricultural Credit Scheme was introduced. For the first time the commercial banking network was entering such a scheme of lending to the rural sector or more specifically to the small farm sector. The People's Bank initiated the scheme and after operating it for nearly seven years, from 1974, the Bank of Ceylon has also participated in it. The Hatton National Bank too grants loans under this scheme but confines itself to lending for paddy cultivation in the Debara Ara Wewa Scheme.

This scheme was operated on re-finance from the Central Bank which lent funds at 1½ percent per annum to the commercial banks. The People's Bank which is the main lending bank in this scheme lends to co-operative societies at 5 percent per annum, and co-operative societies in turn lend to their members at a maximum rate of 9% per annum. The Bank of Ceylon lends directly at this rate of interest through its Agrarian Services Centres. When a loan is not repaid during the stipulated period a penal additional interest of 3 percent is added. Until 1970 the rice ration books of the farmer's household was hypothecated to the co-operative society and when a farmer defaulted in his re-payment of loans each ration coupon was credited to the loan account at the rate of one rupee. Until 1978 the Central Bank guaranteed loans to the extent of meeting 75 percent of the amount in default and charged a fee of one half of one percent for this guarantee. This guarantee has been discontinued from October 1978 in the hope that its withdrawal would result in commercial banks developing a capacity to supervise and recover loans. The sudden liberalisation of agricultural credit in 1977 resulted in total loan disbursements reaching the unprecedented level of Rs. 534.1 million in the 1977/78 season. A significant contraction in Bank loans for cultivation could now be expected with the withdrawal of the Central Bank's guarantee.

Credit is extended for paddy and other crops including chillies, red onions, potatoes, vegetables, bombay onions, groundnuts, sugarcane, cotton and maize. The credit limit for paddy was initially fixed in 1967 at Rs. 220 per acre up to a maximum of 10 acres. Credit limits have been progressively increased to meet increasing costs of production. The loan limits are related to the variety of seed, cultivation practices and regions. Credit is given in both cash and kind by purpose and stages of production. Credit limits for paddy range from Rs. 380 to Rs. 810 per acre.

The volume of credit given for cultivation purposes has increased significantly. The increase in the volume of credit given for paddy cultivation can be gauged from Table 4 which gives the amount of credit given for paddy cultivation from 1947/48 to 1976/77 in three ten-year periods, as well as the amounts of credit given in the last two seasons. As can be seen from these figures there was a near doubling of credit in the second decade and more than a trebling of credit from the second to the third decade. There was an unprecedented increase in the amount of credit given for paddy in Maha 1977/78 when as much as Rs. 420 million was disbursed. Credit given for paddy cultivation since 1967 and the repayment position is given in Table 5.

TABLE 4

LOANS FOR PADDY CULTIVATION

Period		*Total Loans Granted Rs. Million*
1947/48 — 56/57	..	112.24
1957/58 — 66/67	..	203.44
1967/68 — 76/77	..	62.107
Total 47/48 to 1976/77		935.85
Maha 77/78	..	420.27
Yala ..	..	32.44
Total 47/48 to 77/78		1,388.56

Sources: *People's Bank; Bank of Ceylon.*

Until 1967 cultivation credit was given for only paddy. The volume of credit given for other food crops by the People's Bank increased progressively from Rs. 5.4 million in 1967/68 to Rs. 42.8 million in 1977/78. The Bank of Ceylon which lent out Rs. 36,000 for subsidiary crops in 1973, lent as much as Rs. 63.9 million in 1977. The volume of credit given by the two banks for cultivation of these food crops other than paddy, between 1967 and 1978, has amounted to Rs. 294.4 million.

A new scheme of credit called the Comprehensive Credit Scheme was envisaged in 1973. This scheme was to provide both production and consumption credit on a year-round basis through rural banks attached to multi-purpose co-operative societies. There was to be a greater flexibility in the granting of loans, and decisions with respect to requirements in different regions were to be decentralised. The scheme was expected to mature into a self-financing one by increasing the mobilisation of savings.

Although only some provisions of the original scheme have been applied the new agricultural credit scheme was renamed the Comprehensive Rural Credit Scheme.

TABLE 5

CREDIT GIVEN FOR PADDY CULTIVATION SINCE 1967

Cultivation Season			*Loans Granted* (Rs. Million)	*Amount Recovered* (Rs. Million)	*Percent Recovered*
Maha	1967/68 ..	..	61.42	52.86	86.0
Yala	1968 ..	..	11.29	9.80	86.8
Maha	1968/69 ..	..	45.80	28.49	62.2
Yala	1969 ..	..	9.87	8.10	82.1
Maha	1969/70 ..	..	39.35	20.62	52.4
Yala	1970 ..	..	12.36	8.77	71.0
Maha	1970/71 ..	..	23.46	12.88	54.9
Yala	1971 ..	..	5.82	5.07	87.1
Maha	1971/72 ..	..	23.96	15.25	63.6
Yala	1972 ..	..	6.67	5.39	80.8
Maha	1972/73 ..	..	20.24	13.48	66.6
Yala	1973 ..	..	8.03	5.09	63.4
Maha	1973/74 ..	..	85.82	43.31	50.5
Yala	1974 ..	..	25.24	15.38	60.9
Maha	1974/75 ..	..	74.75	35.27	47.2
Yala	1975 ..	..	10.83	8.32	76.8
Maha	1975/76 ..	..	55.29	29.84	54.0
Yala	1976 ..	..	16.91	12.58	74.4
Maha	1976/77 ..	..	83.07	34.10	41.0
Yala	1977 ..	..	15.75	9.48	60.1
Maha	1977/78 ..	..	420.27	83.55	19.9
Yala	1978 ..	..	32.44	13.81	42.6
Total	..	..	1,088.64	471.46	43.3

Source: *People's Bank; Bank of Ceylon; Hatton Nationl Bank.*

Although this increase has been subject to fluctuation the increase has been consistent. Inspite of this increase, no direct causal relationship can be seen between the yearly provision of credit and output.

There has been no increasing level of output corresponding directly to the increase in the quantum of credit in different years. During the period 1947/48 to 1975/76 there were five peaks and 11 troughs with respect to the amounts of credit disbursed. However, one cannot observe a close relation in the output figures corresponding to those changes. For example, in 1960 to 1964 the paddy output increase was 5 percent compared to a 22.4 percent rise in amount of credit granted. Similarly in 1972, 1973 and 1974 credit rose by 376 percent whilst output increased by 26 percent. In contrast in 1959/60 paddy output increased by 18 percent at a time when the amount of credit declined by 24 percent. A similar phenomenon was observed in 1969/70 when output rose to 17.8 percent whilst credit declined by 7 percent. These figures indicate that although the increase in paddy production over a period of three decades is roughly parallel to the increase in credit, it is difficult to relate the macro credit disbursement without observing the micro phenomenon at the village level.

Credit disbursements also seem to filter through a status/class hierarchy. A People's Bank survey of Rural Credit in the Central Region of Sri Lanka seemed to indicate this clearly. The selected sample questioned on whether the Rural Banks provided a useful service varied strongly in their views according to income groups.

The majority of the upper income group found the services useful, whilst those in the case of the lower income group, who responded to the question, roughly an equal proportion found it useful as well as not useful. It is significant also that a large proportion of the lower income groups did not respond. The same pattern is seen in the evaluation of the services of Rural Bank employees by the same income groups: the upper income group finding the services satisfactory whilst a major portion of the lower income group found them unsatisfactory. (Table 7). Once again it is significant that a large percentage of the lower income group did not respond to this question.

Government sponsored credit schemes have tended to follow a cycle where an initial liberalization and expansion of credit distribution is followed by a high rate of defaults and a consequent clamping down on the volume of credit giving rise to a fall in the number of eligible borrowers. The twin objectives of disbursement as well as credit discipline are also governed by political factors whereby the credit tap is opened under non-banking political criteria.

By Yala 1977 total outstanding credit stood at Rs. 340 million. For Maha 1977/78 there was an official decision to relax conditions of credit disbursement and for banks to give credit even to defaulters. Credit disbursed for Maha 1977/78 stood at over Rs. 400 million of which the People's Bank's figure alone stood at Rs. 318 million. This season gave a record output, a fact also connected with good weather, but also resulted in a very poor recovery rate as seen in Table 5 on page 8. Credit criteria has been now tightened up again for Maha 1978/79 and credit is now given stringently and only for non-defaulters. Further the Central Bank has withdrawn its 75 percent guarantee for loans given to farmers by commercial banks.

TABLE 7

EVALUATION OF THE SERVICE OF THE RURAL BANK EMPLOYEES BY DIFFERENT INCOME GROUPS

Opinion	*Lower 40%*	*Middle 40%*	*Upper 20%*	*All*
Satisfactory	4	8	9	21
Unsatisfactory	6	4	..	10
No reply	14	12	3	29

Source: *"Rural Banks in the Kandy District: A Case Study", People's Bank Research Department.*

The reasons for the high rate of default are many. The Central Bank of Ceylon which conducted a survey of reasons for failure to repay Agricultural loans adduced 17 reasons for default (see Table 9) which included low yields, crop failure, lack of interest of co-operative officials, use of funds for other purposes, malpractices of government officials, political interference and no intention of the farmer to repay loans. In other words some farmers do not repay because they are unable to, while others do not repay because they are unwilling to or think they need not repay. It is significant that 14.6 percent of loans were not repaid because the farmers did not have the intention to repay.

A survey carried out by the People's Bank in 1977 on an islandwide sample of members of Co-operatives gave the following reasons for default in cultivation loans (see Table 10 on page 12).

These broad reasons for default given by borrowers have been confirmed by other surveys conducted by the People's Bank.

Whatever the reason for non-repayment of loans it is clear that the large figure of non-repayment

TABLE 6

OPINION EXPRESSED REGARDING THE SERVICE OF THE RURAL BANKS

Opinion	*Lower 40%*	*Middle 40%*	*Upper 20%*	*All*
Useful	3	11	17	31
Not useful	4	1	3	8
No reply	17	12	2	31

Source: *"Rural Banks in the Kandy District: A Case Study", People's Bank Research Department.*

Rural Banks

An important innovation in banking to serve rural areas has been the scheme of Rural Banks inaugurated in 1964. The idea of formalised Rural Banking in Sri Lanka has to be traced to the establishment of the People's Bank in 1961. As stated by the Commissioner of Co-operative Development, Mr. W. Pathirana, in March 1969, on the occasion of the opening of the fiftieth Rural Bank, "the avowed purposes for which the People's Bank has been established are, (to quote from the People's Bank Act No. 29 of 1961) :— to develop the Co-operative Movement of Ceylon, Rural Banking and Agricultural credit, by furnishing financial and other assistance to co-operative societies, approved societies, cultivation committees and other persons". It is entirely due to the People's Bank, its appreciation of the realities of the village economy, of the dependence of the villagers, mostly farmers, on non-institutionalized credit at usurious rates of interest, its sympathy with the aspirations of the Co-operative Movement, its awareness of the role rural co-operatives could play in the alleviation, and eventual eradication, of the misery caused by the dependence of the villager on credit at exorbitant rates of interest, its foresight in evolving a scheme to help co-operatives realise their aspirations, and finally to the courage shown by initiating this experimental scheme, that "Rural Banks" have been established".

The first rural bank was started as a pilot project in March 1964, in a village co-operative society at Minikhinne in the Kandy District. The scheme was expanded to two other societies in April and May of the same year. Thereafter, as it became evident that the programme, in actual operation was working satisfactorily, the bank gradually stepped up its extension to other societies, and by March 1969, the number of societies brought within the scheme had reached the 50 mark. At the end of 1978, 183 rural banks were in existence and there were a further 275 special branches affiliated to them.

When the evolutionary process of the rural banks since 1964 is examined, two phases are noticeable.

i. An experimental phase from 1964 to 1972.

ii. A phase of rapid expansion after 1972.

During the experimental phase the rural banks were set up only in selected co-operative societies. Therefore, their expansion was rather slow as may be seen from the following statistics.

TABLE 8

Year	*Number of Rural Banks*
1964	3
1965	8
1966	13
1967	27
1968	44
1969	68
1970	70
1971	111

A noteworthy characteristic of lending by the rural banks during this period is that the loans granted were restricted only to purposes other than paddy production, with loans for agricultural production, mainly paddy, being given by the co-op. societies.

After 1972 the number of rural banks set up increased rapidly. This increase may be partly due to the reorganisation of the Multi-purpose Co-operative Societies in 1972. With the reorganisation a large number of small and uneconomic Multi-purpose Co-operative Societies were amalgamated to form larger economic units (although the reorganisation did not meet all its ends, as we have discussed in our special issue on Co-operatives.) The societies then became fewer and it was possible to improve the level of management too. With these changes, setting up a rural bank for every reorganised society was followed as a matter of policy. As a result, by the end of 1973, the number of rural banks rose to 341 i.e. there was a rural bank for each of the 341 Multi-purpose Co-operative Societies. Later when special branches of the rural banks were opened in the 'pradeshikas' of the Multi-purpose Co-operative there was further expansion of the rural banking network. The pace of expansion during the period may be assessed from Table 9.

TABLE 9

EXPANSION OF RURAL BANKS (1972-1977)

Year	*No. of Rural Banks*	*No. of Special Branches*	*Total*
1972	242	—	242
1973	341	—	341
1974	332	71	403
1975	338	109	447
1976	345	158	508
1977	285*	259	544

* The decrease in the number of Rural Banks in due to the amalgamation of some multi-purpose co-operative societies. As a result of the amalgamation, a number of rural banks have been converted into special branches (Central Bank - Review of the Economy 1977, p. 33)

After 1972, the rural banks came to be named "Co-operative Rural Banks." The nature and magnitude of business transactions of these rural banks from 1965 upto 1978 may be observed in the Table showing deposits and advances of the rural banks.

These rural banks and special branches provide limited banking facilities. They are departments of co-operatives and perform such functions as accepting Savings and Fixed Deposits and lending for specified purposes such as debt redemption, housing and consumption needs. Pawnbroking — lending on the pledge of gold and jewellery — is another important credit operation of these banks.

The advantages expected of Rural Banks are as follows: Rural Banks operate in a small area, their clientele is expected to be personally known, the operational costs are low and their less imposing structure makes it easier for people in villages to transact business. They also provide an economically viable means of enabling certain banking operations to be available to areas where the establishment of a fully-fledged branch bank is not economically feasible. After a few years of operation the issue was raised as to why these same facilities could not be granted by the People's Bank directly through an expanded branch network to individual farmers. It was found that the Bank in fact did lend to farmers direct as far as possible but it was not feasible doing this on a comprehensive scale, because of the peculiar characteristics of the rural economy and the position of the small farmers who comprise the majority of the rural population. Several thousands of these small-scale peasant farmers cultivated little plots of land, each averaging less than one acre, which many of them did not even own. Their incomes were low and securities they could offer were virtually nil. In such a situation it was necessary that credit decisions be based entirely on a close personal knowledge of each prospective borrower. The cost of a bank branch network necessary to acquire the basic "credit intelligence" and to issue and supervise the multiplicity of small loans during particular seasons and also the mechanics of recovering such loans would have been prohibitive.

This is where the village level co-operative assumed significance. Although the co-operative did not rate high beside the conventional financial institutions, in a farming community where individual resources are so meagre the group strength inherent in co-operatives makes it an indispensable institution for promoting the economic well-being of individuals. It was accepted that the co-operative had many weaknesses in the existing set-up and this was to be expected, for it was a natural corollary of the paucity of resources of the small farmers themselves. Yet its potential to administer rural credit in agriculture was well known, for more than any other institution the co-operative had that close personal knowledge of farmer's capacities; a knowledge so essential in making credit decisions. The co-operatives themselves had several existing weaknesses but yet it was deemed necessary to exploit their potential for this purpose. They were found to suffer from serious managerial and operational shortcomings while their initial resources were woefully limited. Together with this new credit programme therefore it was decided to operate parallel programmes to reorganise and strengthen this societies. The Rural Bank scheme was thus an exercise in rural credit incorporating such a dual programme. While providing co-operative societies with funds for re-lending, the programme also carried with it a package of technical and financial aid designed to strengthen them.

The People's Bank came into assist the co-operatives by training personnel to carry out these credit functions, introducing procedures, and providing credit facilities. Rural Banks deposit their funds with the nearest People's Bank branch.

The development of rural banks was an important institutional innovation. It marked a significant development for both savings mobilization and rural lending. The rural banks have incorporated a blend of the advantages of unit banking and branch banking and tional instruments to serve the rural sector. It has also been an experiment in transforming sophisticated devices into simple and functional means in the rural sector. Further innovative devices to meet the needs of the rural sector will be an important strategy in the development of financial institutions in this sector.

The experience has also underscored the importance of institutions in the mobilization of savings and their capacity to transcend the disadvantages of economic disincentives to saving, such as high rates of inflation and low rates of interest.

If the rural sector is to be serviced by institutional financial devices there is a crying need for a proper understanding of the nature and operations of the unorganized, informal money markets which still operate to a very significant extent in the rural sector. The study and understanding of these markets would provide a useful basis for devising policies, methods and techniques of providing finance for this sector and for devising innovative means of mobilizing savings as well. The existing network of rural banks and co-operatives could itself be used for this purpose. operated through a known and existing institution the co-operative. It has used methods of lending well-known to the rural community, like pawnbroking, and some rural banks are known to have devised innovative means of mobilizing savings.

A study assessing the role and performance of co-operative rural banks, carried out by Nimal Sanderatne and S. Kahagalle, concluded that "the rural banks scheme has demonstrated both the need for, and the capacity of, insti-

TABLE 5. DEPOSITS AND ADVANCES OF RURAL BANKS, 1965-1978

In Rupees

End Year	*No. of Banks*	Deposits			Advances			*Difference between Total Deposits and Total Advances*
		Savings Deposits	*Fixed Deposits*	*Total Savings and Fixed*	*Short-term*	*Pawning*	*Total*	
1965 ..	8	491,636	4,724	496,360	914,699	252,596	1,167,295	— 670,935
1966 ..	13	703,011	22,737	725,748	1,326,457	427,129	1,753,586	— 1,027,838
1967 ..	27	1,305,846	65,381	1,371,227	2,029,476	633,213	2,662,689	— 1,291,462
1968 ..	44	3,110,576	222,614	3,333,190	3,630,731	1,085,613	4,716,344	— 1,383,154
1969 ..	68	5,712,893	460,168	6,173,061	5,572,281	1,523,646	7,095,927	— 922,866
1970 ..	90	16,109,287	799,117	16,908,404	7,122,223	1,980,056	9,102,279	+ 7,806,125
1971 ..	111	17,188,297	676,106	17,864,403	7,144,913	2,171,734	9,316,647	+ 8,547,756
1972 ..	242	22,703,136	617,150	23,320,286	8,226,563	6,958,250	15,184,813	+ 8,135,473
1973 ..	341	44,281,601	872,935	45,154,536	16,177,708	22,734,438	38,912,146	+ 6,242,390
1974 ..	RB 332 SB 91	61,549,118	1,186,243	62,735,361	29,008,262	38,398,508	67,406,770	— 4,671,409
1975 ..	RB 338 SB 109	72,833,867	1,380,104	74,213,971	37,387,369	49,898,203	87,285,572	—13,071,601
1976 ..	RB 345 SB 158	114,495,097	1,793,923	116,289,020	47,624,595	54,167,951	101,792,546	+14,496,474
1977 ..	RB 285 SB 229	170,514,871	4,947,329	175,462,200	55,034,180	55,849,120	110,883,300	+64,578,900
1978 ..	RB 283 SB 375	209,607,670	12,537,698	222,145,368	63,763,200	61,315,568	125,078,770	+97,066,598

RB—Rural Banks. SB—Special Banks Source: *Central Bank of Ceylon*

TABLE 10 **REASONS FOR DEFAULT IN THE REPAYMENT OF CULTIVATION LOANS**

Reason	*Number that gave reason*	*Percentage*
1. Crop failure	148	65.78
2. Lack of extension work	16	7.11
3. Investing in other activities	18	8.0
4. Considering loans as Government aid	13	5.77
5. Settling other debts first	15	6.67
6. Other reasons	15	6.67
Total	225	100.0

Source : *People's Bank Research Deparment*

implies that credit has become in effect an indirect subsidy for the farmer and in the case of non-repayment due to crop failure a substitute for insurance.

Commercial Bank Branch Expansion

The expansion in rural credit has not been confined to the increases in credit for cultivation purposes. The extension of the institutional network to rural areas has been rapid in recent years. The People's Bank had 216 branches at the end of 1978, many of these being in rural areas, and was also servicing the 283 rural banks and their 275 additional special branches. (See box on Rural Banks). The Bank of Ceylon, which till recently concentrated on urban areas, has also ventured into remoter areas. At the end of 1978, it had 480 branches of which390 were sub-offices at Agrarian Services Centres.

Total Bank Credit to Rural Sector

A complete picture of institutional credit for the rural sector is not available due to the lack of data on credit for all purposes given by all institutional sources.

Some estimates place total credit to the rural sector in 1978 at about Rs. 400 million. Of this nearly 75 percent had been given out as cultivation loans, while nearly 10 percent was for purchase of machinery, 5 percent for housing and electrification, and the balance 10 per cent for animal husbandry, crop diversification, small industry, debt redemption, consumption, trade and other miscellaneous purposes.

Credit given under the Comprehensive Credit Scheme for cultivation was the single largest item of credit in 1978.

Credit for Tree Crops

While there has been an appreciable expansion of credit for paddy and food crops, credit programmes for tree crops grown by small-farmers are very limited. Small farmers growing such crops as coconut, tea and rubber have generally had little access to institutional credit. They have benefitted mainly by subsidies for replanting and fertilizer. The provision of credit for these crops is particularly important as small-holdings have increased since the Land Reforms of 1972 and 1975. A certain amount of land held by estates has been re-distributed as small-holdings and these small-holdings cannot be expected to maintain or improve their productivity without adequate credit.

Tree crops are characterised by a long period of gestation. Therefore credit for these crops should allow for repayment after several years when the crops yield a return. Credit is required for new planting, replanting and for fertilization and upkeep of the crops till they begin to bear. Besides, intensive land utilization requires inter-cropping and underplanting all, of which require augmented fertilization.

Recently a new credit programme for coconut small-holders has been worked out. All growers of coconut of less than 25 acres but excluding home gardens of less than 1/2 an acre are eligible. Repayments begin after 2 years and are spread over 5 years. The People's Bank and Bank of Ceylon will operate this scheme on Central Bank refinancing which will initially amount to Rs. 15 million per year for 2 years. Credit limits are based on a maximum of 640 lbs. of fertilizer per acre.

Tobacco Credit

One of the success stories of an integrated credit scheme is that operated for the cultivation of tobacco. In this scheme the assistance given by the People's Bank has been complementary to that extended by the Ceylon Tobacco Company and the results of this co-operation are evident in the comparative prosperity which it has brought to the peasant farmers in these tobacco areas. This scheme for granting of loans for growing tobacco was initiated in the late 1960's in conjunction with the Department of Agriculture and Ceylon Tobacco Company on lands which were not suitable for growing other crops. The basic features of this scheme were that facilities were given to barn owners who could not furnish security and who were not income tax payers up to Rs. 4,000/- per barn on the security of other barn owners. Those who owned two or more barns were able to obtain loans to Rs. 6,000. The loan and the interest are repaid out of the proceeds collected when the tobacco is sold to the Ceylon Tobacco Company. The Company provides the planting material, fertilizer and other agro-chemicals. Its extension personnel give advice on the growing of the tobacco and purchases the crop at a price fixed at the commencement of the season. The value of inputs provided is deducted from the gross sales income of each farmer. Farmers achieve a high level of productivity and are generally satisfied with the prices and marketing arrangements.

This is a model of lending that could be utilised for other crops which need to be processed and which are grown by small farmers in a fairly contiguous region. It could also be used by agencies set up to develop land and settle for cultivation. The banks could lend the finances to the commodity processing agency which could establish the necessary infrastructure to serve the farmers. Sugarcane, coffee, tea and rubber are crops which could be served in this manner. Where the crop is directly consumed or there are competing purchasers of the produce, the credit/input giving agency runs a risk. The farmer could sell the crop to others and the hold of the lender is weakened.

Dairy Development Credit

An important recent development in credit is the new loan scheme for dairy development initiated by the Ministry of Rural Industrial Development. Plantation workers on estates in the Nuwara Eliya District will be given a loan of Rs. 2,500/- per cow for two cows at an interest rate of 9½ percent. The Superintendents would have to certify that there are cattle sheds and facilities for the rearing of the cattle. They are to exercise supervision of the livestock and organize the marketing of the milk to the Milk Board. The Superintendents are responsible for the recovery of the loan from the wage payments and Milk Board payments.

This scheme is interesting as it has used an existing institutional framework of another agricultural subsector to provide the facilities and supervision of the enterprise as well as to recover the funds lent. The supervisory functions of the estate Superintendents can ensure the proper use of funds while the employment on the estates provides security for the loan. It would be useful to find other enterprises in which these principles can be used to grant credit to commence or expand them in the rural sector.

Problems and Weaknesses of Institutional Credit

The most serious problem which institutional credit programmes have faced is the inability to recover a large proportion of the funds lent to farmers. This jeopardises the capacity of credit-giving agencies to continue their programmes, or when the Government has used its funds it creates a financial burden to the Government. Besides, this there is evidence that funds meant for agricultural purposes have been used for other purposes. On the other hand, it is likely that deserving and eligible borrowers do not get credit.

The rates of recovery of paddy loans given in Table 5 indicate a recovery rate of only 43 percent for the entire period 1967/68 to 1977/78. A trend of declining recovery rate is also observable in this data. In Maha 1977/78 when a record sum of Rs. 420.3 million was lent only Rs. 83.5 million or 19.9 percent had been recovered by the end of 1978. About 7.5 percent of these loans though due are not in default. The rates of default for subsidiary crops which were low initially have also increased over time. While only about 17 percent of subsidiary crop loans given by the People's Bank was in default in the first two years 1967/68 and 1968/69, the rate of default has increased to nearly 45 percent in 1977/78. Loans given by the Bank of Ceylon have suffered a similar fate — only 43 percent of funds lent for paddy and 21 percent of funds lent for other crops have been recovered during the period 1973/74 - 1977/78.

The most serious weakness is that the village level organisations are unable to lend on the basis of farmers credit worthiness, supervise the use of funds for the intended purposes and ensure the recovery of funds. Although commercial banks entered the field of rural credit in the 1960s the credit agency finally giving credit to the farmer in most cases is the village level co-operative. These co-operatives are poorly staffed, accused of corruption and have not shown an ability to supervise the lent funds. Consequently credit intended for farmers has been used for other purposes and those borrowing funds do not feel an obligation to repay.

Commercial Banks despite their involvement in rural credit programmes have not developed a complete capability to supervise credit disbursements and improve their credit supervision. One reason for this is that at times governments have laid down policies on who should be given credit rather than having left it to the banks to determine the credit worthiness of borrowers.

Credit and Other Supports

Rural credit for today's paddy farmer is not to be seen in isolation but as part of a package of supports for the farmer, which after the introduction of the new technologies included extension work, fertiliser subsidies, guaranteed price schemes and more recently insurance. The selling price of paddy is at least partly dependent on the Guaranteed Price Scheme (GPS) price and the profit that the farmers can get varies with the guaranteed price as well as on other factors. The profit is largely related to the ability of the farmer to repay loans. The amount of surplus accruing to a farmer who sells at the Guaranteed Price Scheme level are indicated in the following figures taken from a study conducted by the Agrarian Research and Training Institute (see Tables 11 and 12).

The ARTI study carried out during the 1976/77 Maha season gave the following production costs per bushel and profit margin if the produce was sold under the GPS indicating that profit margins were still adequate. With a certain stabilisation of prices the paddy purchases has improved in the subsequent years.

However, the operation of the Guaranteed Price Scheme depends on several factors. At the level of the Co-operatives, sometimes the farmers are unable to sell their produce to the Co-operatives partly due to the seeming remoteness of their purchasing apparatus compared to the private sector which tends to be more flexible. This means that at the village level, the problems of paddy purchase is governed by factors of micro-political economy as much as the national policy which fixes the Guaranteed Price Scheme.

Further, there is variation in the amount of paddy going to co-operatives (hence through the GPS) and the private trader in different parts of the country. The following

TABLE 11 Profit Margins and Production Costs for Paddy Districts

Item		*Polon-naruwa*	*Hamban-tota*	*Kandy-Kegalle*	*Colombo*
Production costs	(Rs.)	24.39	23.00	25.44	29.75
Profit margins in relation to the Guaranteed Price of Rs. 33.00 per bushel	(Rs.)	8.61	10.00	7.66	3.25
Profit margin as a percentage of production costs	(Rs.)	35	43	30	11

data from the ARTI study of modes of disposal of paddy output indicates this.

The ability of a farmer to repay his credit is directly related to his ability to sell his output at a reasonable price. Although the GPS potentially gives this fair price this is not always received; the difference between the GPS price and the price at which the farmer sells his produce varying from district to district.

Credit and the High-Yielding varieties

The use of high-yielding varieties has required a high credit input because the physical inputs now cost more. The varieties of paddy used in Sri Lanka can be arranged on four tiers depending on whether traditional varieties are used (potential yield 40 bushels per acre) the improved traditional varieties (potential yield 60 bushels), the old high-yielding varieties (80 to 100 bushels) or the newer high-yielding varieties (120 to 140 bushels yield potential).

By the early 60s the "H" early high-yielding varieties had begun to spread very widely so that by 1970 over 70 percent of the sown area was covered by these. The situation for 1973/1974 of the three broad seed categories of traditional new high-yielding and old high-yielding varieties are as below.

Seed Variety Adopted Maha 1973/74

	% of farmers
New high-yielding varieties ..	42.0
Old high-yielding varieties ..	33.3
Traditional	24.7

Source : *Crop Cutting Survey*

TABLE 12 Modes of Disposal of Paddy Output (Quantity Disposed as a Percentage of Total Output)

Mode of Disposal	*Polon-naruwa* %	*Hamban-tota* %	*Kegalle-Kandy* %	*Colombo* %
(a) Sales				
To Co-operatives	67	23	10	—
To Private Traders	3	32	12	13
	70	55	22	13
(b) Payments in kind				
Landlords share	—	9	10	5
Others*	3	12	5	4
	3	21	15	9
(c) Home Retention				
For consumption	24	20	59	75
For seed	3	4	4	3
	27	24	63	78
Total output per form :				
(Percentage)	100	100	100	100
(In bushels)	273	197	36	23

* Includes loan repayments, payments in kind to hired labour and draught power.

Despite this adoption of high-yielding varieties having a yield potential of between 100–140 bushels per acre, the national average remains around the low figure of 50 bushels.

Fertilizer

Fertilizer is another aspect of the total package surrounding credit use and fertilizer has been given under a subsidy scheme now amounting to 50 percent and fertilizer use has increased dramatically over the years, but has tended to be price responsive as was shown in the drop in its use in 1975 because of the cut in the fertilizer subsidy.

TABLE 13
Fertilizer Issues for Paddy
(Thousand Tons)

1961	29.0
1962	38.1
1963	47.1
1964	60.1
1965	42.0
1966	44.1
1967	73.2
1968	85.2
1969	83.5
1970	87.1
1971	95.4
1972	88.4
1973	125.5
1974	96.4
1975	48.7
1976	72.4
1977	81.5
1978	113.3

Credit disbursement, its use and recovery therefore are not dependent purely on financial criteria. It depends on the size of the farms and their ability to get a surplus to pay back the loans. Further it also depends on the prevailing tenure systems and the proportion of paddy left for the farmer. It is dependent on the marketing system and the prices the farmer gets. It is also potentially dependent on the insurance supports for the farmer, use of fertilizer and new high-yielding varieties with the associated agro-chemicals. Vagaries of climate also influence it strongly, (which the insurance scheme is expected to cushion the farmer from). However, the most important factor is the social matrix within which credit is perceived by the farmers. In a highly politicised situation as in Sri Lanka, credit has often been a part of politics and one has seen the credit tap being opened and closed on criteria unconnected with paddy production. In such a psychological regime rewarding farmers for non-repayment by giving them further loans leads to cynicism and the good farmer who pays back his loan is looked at with subtle ridicule by other farmers whilst the non-paying farmer is often considered the folk hero. (In certain parts of the North Central Province because of the prevailing climate built up over the decades, days of loan repayment are referred to in lighter vein as "cultivation pay-days"). In such instances credit becomes in fact an indirect subsidy to the farmer and in the case of non-repayment due to crop failure the substitute for insurance. More damagingly it breeds cynicism.

Insurance

The crop failure risk is a major factor in discouraging peasant initiatives and counteracts the benefits of other programmes such as credit, guaranteed price schemes and extension programmes. It has a direct bearing on credit and rural indebtedness. Natural disasters such as drought, floods, pests and diseases enlarge the uncertainties the farmer has to meet with and these act as disincentives for increased production and adoption of improved methods. Insurance in the agricultural sphere theoretically assures farmers financial protection that would allow them to continue cultivation even after a crop failure. Sri Lanka is one of the few countries where attempts at crop insurance have been made. (A strong case is made for such a scheme in India, see box on pages 16 and 17.)

The paddy crop insurance programmes have been in operation, although in a seminal form, since 1958. In the Maha season of the latter year approximately 26,000 acres in five of 22 revenue districts were selected for a pilot project. In 1962/1963 the area covered by insurance was enlarged to 65,000 acres in eleven districts. This was further extended to cover 200,000 acres in 16 revenue districts by Maha 1973/74.

By the early 1970s there was a realisation that there were inherent defects in the scheme as reflected in the very low premia collected as well as in the high rate of indemnity payments. Consequently a new Agricultural Insurance Law of 1973 was introduced which attempted to establish a system of compulsory insurance for paddy. This scheme was to be administered by the Agricultural Insurance Board and premium rates were to be fixed on a regional basis. The Agricultural Insurance Scheme under the new approach commenced operations in Yala 1975 and was expected to cover the entire area under paddy.

The scheme in 1975 had as the unit of insurance the Cultivation Committee area and not the household as earlier. Individual farmers were expected to register with the Cultivation Committee and enter their lands for insurance purposes. It was expected that the insurance agency would by this means deal with only 5000 'insureds' as against the over 900,000 household units. It was expected that the Agricultural Productivity Committee of the Cultivation Committee would be the primary link with the farmer. For purposes of determining premia and for purposes of assessment of loss each 'stretch' (Yaya) in a Cultivation Committee was to be taken as a unit of assessment.

It was found that at the village level this arrangement also gave rise to several irregularities: "Farmers" who did not cultivate were able to get their names into the Insurance register through their informal contact with the Cultivation Committee, often on political patronage criteria. As a consequence the Agricultural Insurance Board at times refused to pay indemnities in such cases. With this refusal to pay, even though on correct grounds, the farmers have tended to take the scheme far less seriously than it should be.

After the introduction of the new scheme in 1975 insurance was made compulsory for the granting of cultivation loans by the lending authorities. When loans were approved to individual co-operative societies the latter were expected to recover premia and forward them to the Agricultural Productivity Centre within the area of operation. The premia varied from Rs. 8 to Rs. 30 per acre for a cultivation season depending on the area, the figure being decided by the Insurance Board in consultation with the APC. However, the scheme was not strictly followed in the initial years and it actually commenced only from the 1975/76 Maha. In 1976 premia rates were revised again and new rates were effected from the 1976/77 Maha season. When the cultivation loans are granted to the co-operative societies the banks are expected to satisfy themselves that the whole crop was insured. The insurance premia varies with the area of cultivation and is fixed by the Insurance Board in consultation with the APCs. A higher premium, three times higher than the others, for those farmers who claim cultivation loans has been introduced as a compulsory measure for the current 1978/79 Maha season. This has been done largely at the insistence of the Banks which have had a very bad experience in regard to recovery of cultivation loans. It is too premature to assess this latter scheme.

The figures quoted in Table 14 of insurance premia collected and area insured in comparison with the total loans given indicate that the system has not been effective as yet.

It is seen that the area covered under insurance continues to be small. In Maha 1976/77 only 22 percent of the total acreage cultivated was insured, compared to 17 percent of the acreage for the previous year. Premia collected for 1976/77 Maha were only 20 percent of the premia expected and represents a marginal decrease compared with the Maha season of the previous year.

For Yala 1977 the area insured was only 6 percent of the total cultivated area and premia collected were also only 8 percent of the premia due, which is less than the figure for previous Yala 1976. The last column in the table indicates that the difference between indemnities paid and premia collected was positive in Maha 1976/77, as well as in Yala 1977. This contrasts with the previous three seasons which had

RURAL CREDIT AND BANKING—The Indian Situation

B. Natarajan

The situation of the rural peasant and the small farmer is much the same in most developing countries of Asia. Institutional credit has yet to make a major impact on his conditions of indebtedness and the hand-to-mouth existence he is often compelled to lead. In this paper, written in 1977 by Dr. B. Natarajan in the *Tamil Nadu Journal of Co-operation* (we publish only excerpts) he emphasises that credit is not all; and farming alone can hardly be expected to generate sufficient income surpluses to get these rural people out of the poverty trap. His paper shows many parallels to the Sri Lanka situation in the measures being adopted to tackle this problem.

Credit is a vital factor of the production function. More so in India's agriculture, where the prospects of 'plough back' are weak compared to trade and industry. For the farmer, credit therefore, is no less important than other inputs like seeds, fertilizer, water, etc. The persistent low production in agriculture in many parts of the country can be attributed to the inadequate and none-too-timely supply of agricultural credit.

To channelize agricultural credit both in terms of adequacy and timelines, the first step should be to institutionalize credit. The starting of the co-operative movement in the beginning of the century was therefore hailed with great hope and expectations. But it failed to show results commensurate with the country's requirements. As of today, after over seven decades of its existence, the co-operatives hardly account for about 30 percent of the total needs of the agriculturists; and that, by-passing, as it were, the small, marginal and low income brackets in the farming community.

The possibilities of commercial credit to agriculture became a reality only after the advent of social control and the subsequent nationalization of 14 major banks in 1969. In fact, one of the compelling reasons for nationalisation was the need to extend credit to the neglected sectors in the economy such as agriculture, small-scale industry, etc.

What made the commercial banks neglect agriculture prior to nationalization? Banking tradition in the country and elsewhere had much to do with it. The banking industry being highly competitive, risky advances had to be kept at a minimum. Loans to agriculture were considered highly risky. Also land, which was all that the farmers could offer as security, was not welcomed by the banks because of its illiquidity, and other problems involved.

Further, the country was held in the belief that in co-operation and co-operative credit alone lay the salvation of the farmers and the solution to their credit needs. Co-operators themselves were largely responsible for this belief and they sedulously fostered the credo, 'Find Raiffeisin' and you will have found everything else. They lived and hoped for the day when the co-operative commonwealth dawns as a solution to all their problems, farm credit taking the place of priority. To few did it occur in that halcyon period that commercial banking credit could be a second string to the credit bow; a source that can fill in the gap in their credit supplies.

Above all, until the country was faced with recurrent food deficits in the face of a growing population pressure, the Agricultural sector itself had been relegated to a secondary place in our development thinking. The nation was concentrating on the building of an industrial infrastructure that will itself be an eventual support for rapid agricultural growth on modern lines. Looking at this with hindsight, few can question today the wisdom of this growth strategy. However, the wheel has turned the full circle and the time has come for priority attention to the development problems of the agricultural sector.

After 1969, the 14 nationalized banks became a potent weapon in the hands of the government which decided that the resources of the public sector banks should supplement those of the co-operative banks in the supply of farm credit.

An analysis of the credit development of public sector banks to the agricultural sector shows that an amount of Rs. 650 crores had been provided as direct finance and another 300 crores of rupees or so as indirect finance by the end of 1975.

Public sector banks have also been increasingly associating themselves with the financing of primary agricultural credit societies. The scheme is fast gaining currency among the states, and in more than half of the states this joint effort in meeting the farm credit requirements is in operation. Over two thousand primary societies have been taken over so far by the public sector commercial banks. Nearly two lakhs of new members have been admitted to these co-operatives and the advances to them stand well over Rs. 20 crores.

In addition to short-term loans for agricultural operations, the banks have also disbursed medium-term loans for investment purposes, besides extending credit for stocking and distribution of agricultural inputs.

However, inspite of the fact that nearly 40 percent of the commercial bank branches are located in the rural areas and that over 800 crores of rupees have been disbursed so far, and inspite of the claim made in commercial banking circles that agricultural credit advanced by banks at present accounts for nearly half of the total credit requirements of the agricultural sector is met by them it is necessary to point out that the banking staff are still urban-based, and are ignorant of local conditions; that the loan procedures are not sufficiently flexible and that on the whole the banks have not come up to the expectations in assisting agriculturers, these should be taken up as a challenge by the commercial banking sector.

Our farmers are essentially of two groups; those who are rich and those who are poor. The former who have ample security to offer and enough own resources to deploy are least affected by the availability or non-availability of credit. In fact, they themselves engage in lending activities often. The poor who form the bulk of our peasantry are at the subsistence level with virtually no surplus left for future investment or production. After the harvest is sold, they are left with just enough for their consumption after paying the creditors back. If they are to raise the next crop—they have to obtain credit again all through their round of operations. Thus they need credit to buy seed, fertilizer and pesticide, to hire labourers or tractors, to instal pumpsets or dig a canal, etc. Here again the needs of different farmers will be different depending upon the mode of cultivation, selection of crops, nature of land, etc.

Desperate to start their next crop and having been shown the cold shoulder by the commercial and co-operative banks in the absence of the necessary security or surety, the farmers have no option but to go to the money lenders, however, harsh their terms and however high their interest rates may be. The money-lenders who may lend in trust may not hesitate to recover by threat. This was the position until recently and now with the disappearance of the private money lending agencies and pawnbrokers consequent on the promulgation of various ordinances by the then Government the plight of the villagers has become even more trying.

Thus it is that for the small and marginal farmers living at subsistence level, whose credit needs demand the highest priority, provision of short-term loans alone will not help tide over the problem. While the short-term advances to farmers owning less than 5 acres of land accounted for nearly 45 percent of the total agricultural advances and long-term advances were a mere 16 percent of the total advances. The final solution should be to make each farmer self-sustaining and self-reliant. This can be done only by providing the farmers with credit to instal permanent overheads like wells, tractors, motors, etc., which would render the holdings viable.

Considering the present rural set-up, it is evident that the commercial banks would have to restructure themselves to conform to the requirements of the rural sector, their traditions and practices. In some ways the new approach of the banking system functioning in the countryside

TABLE 14

OPERATIONS OF THE AGRICULTURAL INSURANCE PROGRAMME (POSITION AS AT END OF 1977)

Season	Area Cultivated	Area Insured	Premia Due	Premia Collected	Difference between Premia due and Premia Collected	Indemnities Paid	Difference between Indemnities Paid and Premia Collected
Yala 1975	324	51	8,665	800	7,865	1,299	— 499
Maha 1975/76 ..	1,147	198	18,377	3,854	14,523	4,734	— 880
Yala 1976	642	114	8,490	1,568	6,922	2,846	— 1,278
Maha 1976/77 ..	1,339	288	21,158	1,155	17,003	3,091	— 1,064
Yala 1977	718	58	9,523	801	8,722	452*	+ 349

* Incomplete data

Source: *Agricultural Insurance Board; and Department of Census & Statistics.*

negative balances due to unprecedented droughts. The latter necessitated a high degree of subsidy by the Board.

It should also be noted that figures for premia collected, shown in the Insurance Board figures, is apparently undervalued. According to our investigations the individual co-operatives have not yet paid the premia to the Insurance Board. (For example, for the 1977/78 Maha season we came across several such instances, in the Dry Zone non-irrigated areas, amounting at times to about 0.7 million of unpaid premia).

It should be noted in summary that the first few years of the scheme were marred by several successive drought periods. The situation improved from 1976 onwards and preliminary indications, from the figures quoted above, therefore are that the new scheme is promising although it is still premature to make a more firm estimate. All agricultural credit is now theoretically tied to insurance which on paper should provide consistent guarantees for both lending bank as well as borrowing peasant. Yet this, like all centrally planned measures, will have to prove its worth in the real arena of the village level.

Conclusion

An important implication that has emerged in this discussion is that credit policies alone cannot be expected to solve the problems of the rural sector. Many problems of the rural sector arose out of the fundamental structural deficiencies that have arisen and grown ever since the dualistic split began to appear in the country's economy from the early colonial days. When viewed in perspective it appears that these problems can be resolved mainly by devices such as agrarian reform encompassing tenure changes and development of firm village level institutions.

Credit to the rural sector must be viewed as a facet of agricultural development policy where the provision of infrastructural requirements and institutional structures are a prerequisite, credit for agriculture could be effective only if

should be on the same lines as the private money lending agencies in that credit should be flexible and timely. But the interest rate charged should no doubt be appreciably lower than that charged by the money lenders and repayment instalments easier. Further, the banks acting as agents of development and social change should give their prospective borrowers positive guidance as to how they could make their borrowed funds productive, so that repayment is practicable.

But credit is not all. It is but one of the inputs, though a crucial input in farming. The end and aim of credit is to make farming a viable proposition. As it is, despite the vast investment made by the Government by way of augmenting the infrastructure facilities, like irrigation, power, etc. the numerous incentives given to the farming sectors and the far-reaching changes affected in agricultural practices through the "Green Revolution", it is disappointing to note that farming still remains a way of life, rather than an economic proposition.

The notion that prevails in some quarters that the agricultural terms of trade have been constantly rising, and that this upward trend has redistributed income in favour of the agricultural sector is largely based on the theoretical concepts little applicable to the vast diversities of the agricultural sector in the country. To generalize for the entire agricultural economy of the country from the experience of few prosperous pockets in Punjab and Haryana is an exercise in faulty methodology pregnant with wrong leads for the policymakers. It is one thing to say that the prices of farm products require to be maintained at reasonable levels as a measure of checking inflationary pressures, and that rich farmers should be made to pay unto Caesar what is Caesar's, but a far different thing to say that farming is an Eldorado, and farmers the plutocracy of the countryside.

A recent field study conducted by the Institute for Techno-Economic Studies, Madras, covering a sample of farmers growing the four major crops, sugarcane, paddy, cotton and groundnut in Tamil Nadu has revealed that the net income from farming is still calculated to perpetuate farming as a way of living only. A net income of Rs. 500 for paddy, Rs. 300 for groundnut, Rs. 400 for irrigated cotton and Rs. 900 to Rs. 1,000 for sugarcane was all that a one-acre farmer got. This excludes capital expenditure on land and interest on working capital, land revenue and cesses which were not taken into consideration in computing the aggregate cost. On this level of income a whole family has to subsist for a period of several months in the year.

India being, what is termed a "geographical absurdity" and the conditions affecting agriculture widely diverse, to base the prices of farm products on the findings of a monolithic Prices Commission at Delhi is as absurd as it is unfair.

However, neither supply of adequate and timely credit, nor fixing of remunerative prices for farm products will make farming a viable sector and a business proposition. Nor can farming wait till a vast infrastructure by way of more irrigation works, and power projects are taken up and completed. Science and technology too can help but little as long as the risks to which farming in this country is heir to from the vagaries of nature, droughts and floods, pests and tempests remain a serious menace to agricultural stability. Here it is a comprehensive and, if need be, a compulsory scheme of crop insurance has its relevance, significance and urgency.

Even as was done in nationalizing commercial banks, a bold stroke or act on the part of government is called for. The hesitancy on this score based on mistrust of farmers and exaggerated calculations of cost is ill-advised. A comprehensive scheme of crop insurance, debated for long and delayed in the process, will serve as a scheme of social security, specially relevant to an agricultural country like ours and as a measure of agricultural stability and progress at once. Farming as an occupation has been condemned to a precarious existence for too long.

integrated with other measures such as the availability of improved technologies and extension services, the provision of irrigation and transport facilities and adequate prices and marketing facilities.

Another aspect of the indebtedness problem is that credit for consumption remains largely outside the orbit of institutional credit. The observation of several decades ago that institutional credit is for specific production purposes and that this limitation implied that the most pressing needs of the rural sector cannot be serviced by institutions remains largely valid today. Rural Banks have made only a limited impact on consumption credit but their success in mobilising savings should provide a sound basis for expanding their loan operations.

The distinction often made between production credit and consumption credit with the limitation of credit to the former is also counter productive. Consumption needs are often prior needs and if they are not met, production credit would either be used for consumption or where it is not possible to use credit for consumption owing to credit being given in kind, a farmer's commitment for consumption credit will reduce the effectiveness of production credit.

There is an implicit assumption in discussion of credit that institutional credit is "good" and that informal credit is "bad"; that institutions charge low rates of interest and informal lenders high rates of interest. These are not necessarily the perceptions of peasant farmers. To them the flexibility of the informal sector is sometimes more important.

As one of our economists stated recently "It may be heretical to suggest that the institutional sector itself lends to informal lenders. But increasing non-institutional liquidity could create a competitiveness in the informal credit market which would reduce interest charges". Given the advantage of the informal sector to operate in the rural sector such a policy may serve its needs well. Alternatively the secret to the success of the institutional sector lies in its ability to approximate the informal sector.

INDUSTRY

READY-MADE GARMENTS EXPORTS

While competition grows more intense among producers more protectionist and other barriers appear

The rapid expansion in the exports of the established ready-made garments manufacturers of the Asian region has become a cause of concern for the existing industries in the US and many Western European countries and possibly a cause for anxiety among the Asian producers themselves. The International Multi-Fibre Agreement which came up for renewal in 1977 gave the E.E.C. and Nordic countries, the USA, Canada, Japan and Australia the opportunity to bring in various restrictions on the more popular apparel export items of the Asian suppliers. In recent times the cry for greater protectionism has been raised in many of the developed country markets. Meanwhile, big exporters were exhausting their annual quotas before the year's end and looking for various means of taking advantage of conditions in those developing countries which had entered the race comparatively late. Among such Asian countries were Sri Lanka, Bangladesh, Indonesia, Pakistan and the Philippines. The outlook in the long-run is by no means encouraging for the Asian exporters, especially countries like Sri Lanka which are now setting up enormous capacities to feed a restricted international market. An overview of the current situation among some of the Asian producers and in the developed country markets will explain why.

A recent study published by the Overseas Development Institute in London has warned that the countries of the Indian sub-continent—India, Pakistan, Bangladesh and Sri Lanka—must expect EEC trade barriers to continue or get worse. According to the study reduction in tariffs has rapidly been overtaken by the emergence of the numerous non-tariff barriers to trade and, in particular quantitative restrictions on products such as textiles where the countries in the sub-continent are likely to be worse hit than the newly industrialising countries like South Korea.

The study adds that if the Multi-Fibre Agreement (MFA) is retained more or less in its present form, South Asian producers will suffer most in the long-run.

The most recent OECD forecast also expresses fears of a growing protectionism. Energy and inflation were two of the major constraints now facing the 24 developed market economy nations of the Organisation and OECD experts believe that prevailing constraints are so serious that member-governments will have to deal with them before hoping to return to higher economic growth and hence lower unemployment. The OCED Secretary-General has warned that slower growth was breeding protectionism in various forms and expressed the hope that ministers will renew the "trade pledge" under which member-countries refrain from taking unilateral defensive measures to the detriment of others. The US government too was meeting with strong pressures at home; and with growing predictions that the US economy was entering a recessionary period there was every possibility that restrictions on imports into US would continue.

China

On the other hand, a potential threat to established exporters and smaller exporting countries in Asia is that posed by the massive production capacities of China. In her outward thrust China is likely to enter the export market on a sizeable scale. Cheap labour and generally low production costs have created a demand for Chinese products in the US market. The United States has applied import quotas on China's apparel exports, as it has done in the case of most garment-producer countries. These quotas were applied to cotton work gloves, cotton trousers, cotton shirts for men and boys, women's cotton knit blouses and for synthetic fibre sweaters, though there were no quotas for cotton print and other textiles. But both countries were hoping to negotiate apparal agreements and until such time as agreement is reached the existing restrictions would continue.

Negotiations are underway between US and China for an over-all trade agreement. The comprehensive trade pact being negotiated includes provision for "most favoured nation" status for China, which would give it a lower tariff schedule and access to certain trade credit. If the trade agreement is approved US and China trade which totalled about $1 billion in 1978 is expected to rise to $2 billion this year and reach $6 billion a year by 1985, and textiles and ready-made garments exports would therefore be expected to go up proportionately.

Hong Kong, Taiwan, South Korea

The big three Asian exporters (Hong Kong, Taiwan and South Korea) are now beginning to feel the competition from newcomers such as China. Taiwanese officials noted that in the US market textile exports from two of these exporters fell sharply in the first quarter of 1979. In March, for instance, the volume of Taiwan's textile exports to the U.S. fell 32 per cent from a year before, according to U.S. statistics. Meanwhile, South Korean exports dropped 24 per cent, and Japan's 11 per cent. The cutback in exports was caused in part by lower demand in the U.S. market, they said, and also by competition from such newcomers as China. One concrete example was that exports of Taiwan's synthetic fibre sweaters had declined sharply this year at the expense of the Chinese competition. In the first quarter, Taiwan's shipments of women's synthetic sweaters to the U.S. fell 51 per cent to 211,000 dozen, while at the same time, China's shipments of women's sweaters surged 940 per cent to 203,000 dozen.

US negotiators are due to begin a second round of textile talks for the year with the three major textile exporters—Hong Kong, South Korea, and Taiwan—in July this year. Officials from these countries expect the talks to result in the creation of more restrictions as the U.S. government is under pressure from domestic textile manufacturers and Congress to restrict imports in order to protect the American textile industry. The US textile makers' demand for relief has been building lately because of the proposed tariff cuts on textile imports reached in the Multilateral Trade Negotiations. To placate them the U.S. government has agreed to restrict Chinese textile imports. And these curbs may be extended to Taiwan, Hong Kong and South Korea as well.

Despite the quota restrictions on Hong Kong's apparel exports she has recorded a 30 percent increase in the value of her exports in the first quarter of 1979. Hong Kong has moved over to using more expensive, better quality fabrics and turning out garments outside quota control.

The Philippines

Among the comparatively recent ready-made garment manufacturers to enter the export market was the Philippines. But while production capacities of Philippine's manufacturers have grown heavily over the last two years, restricted markets were upsetting their calculations. There is no doubt that Philippine's exports have continued to grow. For instance, garments and textiles, which are registered as a non-traditional export, have recorded a 25 to 30 per cent increase in exports since 1975. Estimates for 1978 exports varied between US $ 338 million and $ 358 million as compared with US $ 250 million in the previous year. In 1970 the Philippine's exported only some US $ 40 million worth of garments and textiles, but since 1975 rapid increases have been realised. The Philippines authorities estimate that exports in 1979 would match those of the last year and the industry is now moving into an aggressive promotion and sales drive and has set up an advanced Exports Garments Technology Terminal in Manila in which 1,200 managers are to be trained annually in a simulated garment factory. This industry has now become the leading non-traditional exporter of the Philippines and is also the nation's biggest employer, outside the government, employing more than one million workers.

The Philippines, however, like many other Asian producers are facing the problems from import quotas being applied in many traditional developed country markets. Philippine's exports have reached quota limits in many categories of products and by February this year an appeal was made to the US to review its classifications of Philippine garments exports which had led to an embargo of 1.6 million pieces. The Philippine's situation was one that could become typical for many of the new producer countries in the market. Philippine's exporters were running into problems of restricting their production and exports to the quotas allocated to them by the officials of the country's Garments and Textile Export Board. Philippine's garments exports for the first quarter of 1979 were 110 per cent above that of a year earlier; recording an earning of $ 70 million with both exports and foreign orders continuing to rise. Fearing the danger of only some producers taking up the country's allocations the Government brought in restrictions.

The main complaint from Philippines exporters is about regulations that have slashed their 1979 quotas to 70 per cent for each quota item. But some exporters have already contracted to sell the quotas their companies had received before these rate changes were announced. They were now in a quandary as to how they could possibly keep their commitments. The General Manager of the Philippine's leading garment exporter, Levi Strauss (Phil.) Inc., said his company lost sales of more than 100,000 pairs of pants this year because of gyrations in government policy. In Britain alone his company's 1979 quotas of 128,000 pairs has been slashed to 76,000 he said.

The Manager of another firm, M. Greenfield Inc. said his firm has promised its previous 1979 quota of blouses to such prestige U.S. Department stores as Bloomingdale's and Lord & Taylor. He said the stores are currently printing their Christmas catalogues, and he could not deliver the goods that they were advertising with his quota brought down. "I cannot tell them that a government regulation says 'no' for this year, he said, "No other country does this".

The Philippine's garment manufacturers are also asking ASEAN to help in negotiations with countries imposing quotas on these products. Textile and garment makers in the ASEAN group of countries have begun working towards negotiating on a regional basis with countries that impose import quotas on their products. One of the most concrete steps taken so far is that the ASEAN manufacturers have agreed to hold a joint apparel show in Manila next January. In the face of growing restrictions and competition the five ASEAN countries would resort to closer collaboration as the one practical way of meeting the situation, which may once again have an impact on all other Asian garment exporting nations.

Countries in the South Asian region such as Pakistan, India, Bangladesh and Sri Lanka would also have to contend with such a situation. They all are having their problems, yet they all appear to be expanding their capacities and are pushing more aggressively in their search for markets for their textiles and ready-made garments.

India

In India, for instance, the cotton textile industry is finding it extremely difficult to push up its exports because of the protectionist policy pursued by the developed countries and most affected has been the performance of India's handloom sector. The export statistics released by India's Handloom Export Promotion Council indicate that exports of cotton handloom goods at Rs. 221.37 crores recorded a fall of Rs. 4.19 crores in 1978-79. Authoritative sources commented that on the face of it, the decline is marginal. But the itemwise figures show that the decline took place despite a handsome rise of about Rs. 31 crores in exports of cotton handloom ready-made garments. In other words, the gain in garments was more than offset by the decline of Rs. 27 crores in exports of cotton handloom fabrics and Rs. 8 crores in those of cotton handloom made-ups.

A fact that emerges here is that India has experienced an unprecedented expansion in her ready-made garments industry, over the past five years and now had markets in over 100 countries, the major outlets being the United States and Western Europe. In February, it was reported that India was making a strong bid to gain a foothold in the Japanese market with her first-ever apparel exhibition opened in Japan last month. Indian government spokesmen announced on the occasion that the Japanese market has not been effectively exploited by the Indian industry so far. For example, while the present annual exports of Indian garments to the U.S. was of the order of $ 160 million (Rs. 120 crores) and that to the U.K. $ 50 million (Rs .40 crores) Japan's share last year was a mere $ 8 million, they said. India hopes to achieve a target of $ 1,000 million (Rs. 800 crores) annually for garment exports.

Pakistan

Pakistan too is placing new hope in its textiles and ready-made garments sector. Pakistan's textile industry which had been depressed over the past five years was showing signs of bouncing back, according to a government spokesman. Statistics for the September 1978 to February 1979 period showed that the total value of yarn exports alone rose 27 percent in the period, partly because of the larger volume exported, and partly because of improved international prices.

Pakistan's exports of ready-made garments, towels and hosiery also continued to show a healthy trend, the government spokesman said. According to him the value of these items rose 13.9 percent in the period to $ 22.1 million from the year earlier. The Economic Co-ordination Committee of the Cabinet of Ministers, expressed hope that "if the present stable conditions continue the role of cotton and cotton products in the economy of Pakistan will soon be restored to its original status". Before 1972, cotton and cotton products were Pakistan's biggest export.

The protectionism in the developed country markets has brought with it a system of quotas for the products of each exporter country. The more established exporter nations have felt it more severely though the not-so-well established garment producers like Bangladesh and Sri Lanka were also given set quotas. These latter countries, however, were not geared to fulfilling their entire quotas. The established producers were therefore moving in to these countries with the hope of making the best of the situation.

Bangladesh

Bangladesh in its drive to attract foreign investments into the country has emphasised that one of its significant attractions was that in an era of rising protectionism there were minimum western restrictions on Bangladesh products. The recent restoration of US government-backed overseas investment insurance has encouraged American investors to think in terms of expanding their existing pharmaceutical and garments units and moving into several other industries as well. Reports also indicate that South Korea's investors have already set up a garment factory, while various Hong Kong and Singapore garment producers were now seriously considering joint ventures. Furthermore, Bangladesh exports were growing and responding to the country's new concessional export programme, with ready-made garments ranking high among the non-traditional items of export?

Some of the established Asian producers have also resorted to various measures to beat quota restrictions and other forms of regulation on their exports. In February this year American officials began investigating allegations that textile products from Taiwan and Hong Kong were being shipped through Indonesia and Sri Lanka, in order to get around US textile and apparel import quota restrictions. Imports from Indonesia and Sri Lanka were not regulated by quotas and the chief US textile negotiator visited both Sri Lanka and Indonesia to look into these charges. Subsequent reports stated that the US intended fixing quotas on the exports of these two countries as well.

Where does Sri Lanka stand in the light of this situation?

Sri Lanka

Current estimates indicate that the proportion of Sri Lanka's share of the market in the developed market economies would gradually diminish between 1980 and 1982. Production capacities, on the other hand, are well beyond the projected marketability of 18 million pieces of quota items that Sri Lanka could sell in its restricted international markets by 1982. Sri Lanka's position will be discussed, in our next issue, through a study which maintains that there is heavy overcapacity in the industry as it now stands.

TRADE

Steep Acceleration in 1978

The introduction of the economic reforms in late 1977 were regarded as preconditions for an "outward looking" strategy geared towards economic growth, and following these measures a relatively more "open economy" has come into being in Sri Lanka. This policy also implied a liberalisation of trade and exchange restrictions which were mainly intended to stimulate the production activities in the economy. The immediate effects of the import and exchange liberalisation programmes were apparent in the steep acceleration of imports after November 1977. Naturally, the export sector generally experiences a greater time interval to adjust and respond to any policy change. The combined effect of these two trends therefore, was a massive deficit in Sri Lanka's external trade account in 1978.

For two consecutive years, Sri Lanka had enjoyed surpluses in her trade balance, but the sharp rise in imports together with a low rate of growth in exports has resulted in a considerable trade deficit in 1978. On the basis of Customs data, export earnings in 1978 increased by only 8 percent while imports rose by 23 percent. In rupee terms the value of exports stood at Rs. 13,206 million as against an import bill of Rs. 15,366 million registering a trade deficit of Rs. 1,457 million.

Compared with the corresponding figures for the previous years the rupee values recorded in 1978 appear excessively high. This is because the exchange rate reform in November, 1977 led to a depreciation of the rupee resulting in much higher values for a given dollar or pound equivalent of exports or imports. The use of a more stable unit of accounting therefore, has been suggested by the Central Bank, for the analysis of trade data. This unit known as the Special Drawing Rights or SDRs is an accounting unit accepted universally by the member countries for the purpose of borrowing and transacting with the International Monetary Fund. The export and import data for 1978 compares more meaningfully and realistically with that of the previous years when this unit of accounting is used.

TABLE 1. — EXTERNAL TRADE ACCOUNT 1974-78

(SDR values within brackets)

		1974	1975	1976	1977	1978
Exports: Rs. Million	..	3,472 (432)	3,933 (466)	4,815 (495)	6,638 (659)	13,206 (676)
Imports: Rs. Million	..	4,554 (569)	5,251 (617)	4,645 (477)	6,007 (630)	14,663 (774)
Trade Balance Rs. Million	..	1,082 (—137)	1,318 (—151)	170 (% 18)	631 (% 29)	1,457 (— 98)
Terms of Trade (1967=100)	..	58	46	67	81	80

Source: *Central Bank of Ceylon*

The SDR equivalent of the exports and imports in 1978 are shown within brackets in Table I. There has been a marginal increase in exports from SDR 659 million in 1977 to SDR 676 million in 1978. Imports on the other hand, have risen from SDR 630 million to SDR 774 million over the same period. Hence, the surplus situation of the previous year has disappeared and a deficit of nearly SDR 100 million has emerged. Comparable data for the past five years are also given in Table I.

The annual Terms of Trade Index that takes into account the relative change in the import and export prices had indicated a generally favourable position in 1977, when it improved from its very low levels of the previous years. This trend continued in 1978 when the Terms of Trade Index was computed as 80 (1967=100), but was still quite unfavourable for Sri Lanka. An index of less than 100 indicated a deterioration in a country's terms of trade due to import values rising much faster than those of export values. In such cases, the quantity increase in exports may not be sufficient to arrest a worsening trade balance. In view of the low prices of exports and the relatively inelastic nature of the supply of export goods in the short run, the import liberalization programme (at a time when the import prices were rising) resulted in an enhanced trade deficit.

TABLE 2. FOREIGN TRADE INDICES 1968-78

Index Number (1967=100)

Year	Volume: All Exports	Volume: All Imports	Prices: All Exports	Prices: All Imports	Terms of Trade
1968	106	101	117	126	93
1969	98	108	117	134	88
1970	102	102	118	140	84
1971	99	90	117	150	78
1972	97	88	118	157	75
1973	98	79	137	209	65
1974	85	56	217	37	58
1975	102	69	199	433	46
1976	97	75	239	383	62
1977	89	97	382	471	81
1978	95	137	698	877	80

Source: *Central Bank of Ceylon*

TABLE 3. MAJOR ITEMS OF EXPORT IN 1976, 1977 and 1978

	Value Rs. Million			Percentage of Exports		
	1976	1977	1978	1976	1977	1978
Tea	2,100	3,503	6,383	43.7	53.0	48.5
Rubber	890	931	2,021	18.5	14.0	15.3
Coconut	382	335	972	8.0	5.0	7.4
Textiles and Textile articles ..	173	285	734	3.6	4.3	5.6
Gems & Jewellery ..	264	302	536	5.5	4.6	4.1
Mineral Fuels ..	140	149	376	2.9	2.2	2.9
Fish & Crustaceans	75	95	233	1.5	1.4	1.8
Sub-Total ..	4,024	5,600	11,255	83.8	84.7	85.6
Other Exports ..	777	1,015	1,920	16.2	15.3	14.4
Total Domestic Exports	**7,801**	**6,615**	**13,175**	**100.0**	**100.0**	**100.0**
Re-exports .	14	23	31			
Total Exports ..	4,815	6,638	13,206			

Source *Sri Lanka Customs Returns*

Exports

Export earnings in 1978 were low primarily because of poor tea prices which more than offset the contribution of the increased quantity of tea exported. In SDR terms, thus, tea export earnings fell by about 8 percent in 1978. Rubber exports, however, improved substantially by about 11 percent in SDR terms with the favourable world market prices which rose by about 14 per cent. A production recovery in coconut enabled a greater export volume in 1978, and the SDR value of exports from three major coconut products rose by more than 50 per cent in 1978, despite a reduction in the export prices of coconut. However, the poor performance of tea exports is a matter for concern as this commodity still accounts for almost half of Sri Lanka's export earnings

Within the past decade, several non-traditional exports were encouraged with the idea of diversifying the export structure (Table 3) Minor Agricultural exports, industrial exports and gem exports together now contribute about 25 percent of the total export earnings of Sri Lanka. In 1978, the value of industrial exports (including petroleum products) amounted to Rs. 1,891 million or nearly SDR 100 million, reflecting about 14 percent of the total export earnings. While the industrial exports as a group registered an increase in earnings, gem exports fell by about 10 per cent, and the export value of minor agricultural crops also declined by about 13 percent, in SDR terms. In rupee terms, all these exports would show higher earnings in 1978 due to the exchange rate adjustments, but it would not be realistic to evaluate the trade performance on the basis of rupee values anymore, as mentioned earlier.

Imports

After several years of administrative controls, payments restrictions and exchange controls, the import trade began to operate free of restrictions with the introduction of the Government's new economic policy in November 1977. Most of the consumer goods, intermediate goods and capital goods (upto Rs. 700,000) were allowed without Government's prior approval. As a result of this liberalization of imports, the volume of imports went up immensely and rapidly. The Import Volume Index (1967=100) calculated by the Central Bank indicated a 36 percent rise from the 1977 level, when the index level reached 132 in 1978. The value of imports went up due to both quantity increases and price increases. The level of imports at Rs. 14,663 million in 1978 was equivalent to SDR 774 million compared with SDR 630 million in 1977, reflecting a 23 percent rise.

The growth in imports, however, was accompanied by a shift in the shares of the major import sectors. The composition of imports clearly demonstrated an increase in the import of capital and investment goods. This can be seen from Table 4 which compares the percentage shares of types of imports. Over the period 1977 to 1978, the share of capital goods has risen from 12 to 23 percent or by twofold, the main item in this category being machinery and equipment. The capital and intermediate goods imports in 1978 together accounted for over 70 per cent of the total import bill and this appears a satisfactory development, for the economy, arising from the import liberalization policy. The impact of this development will be seen in the medium and long-run as the capital goods and intermediate imports would after a time-lag, other factors being favourable, contribute to the enhancement in production.

TABLE 4. COMPOSITION OF IMPORTS BY CATEGORIES 1974-78

(Percentage shares are given within brackets) **(Rs. Million)**

	1974	1975	1976	1977	1978
	(47)	(50)	(36)	(42)	(38)
1. **Consumer Goods**	**2,138**	**2,651**	**1,689**	**2,534**	**5,594**
a. Food & drink	1,950	2,520	1,491	2,181	4,103
b. Textiles	59	20	49	150	531
c. Consumer durables & other goods	129	111	149	203	959
	(42)	(36)	(49)	(44)	(38)
2. **Intermediate Goods**	**1,920**	**1,888**	**2,259**	**2,648**	**5,591**
a. Fertilizer	221	208	99	51	252
b. Petroleum	905	872	1,164	1,441	2,403
c. Other	794	808	996	1,156	2,936
	(10)	(12)	(14)	(12)	(23)
3. **Capital Goods**	**457**	**653**	**641**	**746**	3,367
a. Building materials	147	169	104	129	150
b. Transport equipment	91	116	175	232	988
c. Machinery & equipment ..	183	322	364	286	1,846
	(1)	(2)	(1)	(2)	(1)
4. **Unclassified**	**39**	**59**	**54**	**79**	**110**
Total	4,554	5,251	4,645	6,007	14,663

Source *Central Bank of Ceylon*

TABLE 5. MAJOR ITEMS OF IMPORT IN 1976, 1977 and 1978

	Value Rs. million			Percentage of Imports		
	1976	1977	1978	1976	1977	1978
Petroleum ..	1,196	1,490	2,433,7	25.7	24,8	16,7
Rice & Cereals ..	743	1,051	841,6	16.0	17,7	5,8
Flour ..	688	930		14,8	15,5	14,4
Sugar ..	68	199	562,9	1,5	3,3	3.9
Textiles & Yarn ..	189	459	1,217,6	4.0	7.6	8.3
Fertilizers	76	18	251,6	1.6	0.5	1.7
Pharmaceuticals ..	59	87	156.3	1.3	1.4	1,1
Boilers, Machinery and Appliances	292	313	1,800.3	6.2	5,2	12,3
Iron and Steel ..	182	188	927,8	3,9	3,1	6.4
Motor Vehicles and parts	150	233	1,681,6	3,2	3,9	11,5
Sub-Total ..	3,642	4,978	11,979,8	78,4	82,9	82,1
Others ..	1,003	1,029	2,633,6	21,6	17,1	17,9
Total Imports ..	4,645	6,007	14,613.4	100.0	100.0	100.0

nomy arising from the import liberalization policy. The impact of this development will be seen in the medium and long-run as the capital goods and intermediate imports would after a time-lag other factors being favourable contribute to the enhancement in production.

Machinery and appliances and motor vehicles and spare parts alone have taken up almost 25 percent of the total value of Sri Lanka's import bill in 1978; in 1976 these items did not take even 10 percent of the total import bill. Another item of importance was textiles and yarn which took up 8.3 percent of the import bill in 1978 as compared with only 3 percent in 1976.

Sources of Supply

It is significant that with the changing pattern of imports, following the liberalisation, that Japan should have ended up as the foremost supplier of our imports in 1978. Hitherto Saudi Arabia, our major petroleum supplier, had occupied the top position in 1976 and 1977 and was behind only China in 1975. For the first time, however, Japan which had not been within the first three suppliers over the past years, came to occupy the leading position as supplier of our foreign products. A notable feature in the pattern of imports has been the increasing concentration of sources of supply in recent years. The first five supplying countries accounting for nearly half the value of our imports and the first ten for almost 75 percent.

U.S.A., UK, India, Iran and Saudi Arabia have continued to be among the first six sources of supply in 1978 too. Of the nearly 90 suppliers of Sri Lanka's imports in 1978 the first 25 accounted for 93.3 percent of the total value. In 1978, however, imports from many leading supplier-countries more than doubled with the very large volume of machinery equipment, industrial manufactures and motor vehicles coming in from these sources.

Japan, for instance, moved aggressively into the Sri Lanka's liberalised imports market. The value of Japan's exports to Sri Lanka moved up from Rs. 376 million in 1976 to Rs. 398 million in 1977 and increased almost fourfold to Rs. 1,159 million in 1978. Nearly 60 percent of these imports from Japan in 1978 were vehicles and other transport equipment (Rs. 405 million) and electronic equipment parts and machinery and mechanical appliances (Rs. 289 million). Another major area was base metals and articles of base metal (Rs. 252 million). Most recent Customs data indicates that Japan pursued its aggressive trade drive into 1979 and by March this year 15 percent of the value of Sri Lanka's imports were from Japan. India was following second, accounting for 9 percent of the value of our imports and third was Singapore accounting for 8 percent of imports.

TABLE 6. IMPORTS 1975, 1976, 1977 and 1978

SRI LANKA'S 25 MAIN SUPPLIERS OF FOREIGN PRODUCTS IN 1978

	1975 Rs, m.	%	1976 Rs. m.	%	1977 Rs. m.	%	1978 Rs. m.	%
1. Japan ..	447	8,5	376	8,0	398	6.6	1,590.4	11.0
2. Saudi Arabia	657	12,1	596	12.8	747	12,4	1,385.3	9.6
3. U.K. ..	223	4.3	275	5.9	327	5.	1,396.1	9.6
4. India ..	150	2.9	181	3.9	377	6.2	1,242.9	8.6
5. U.S.A. ..	337	6.4	379	8,2	538	8.9	1,104.6	7.6
6. Iran ..	218	4.2	499	10.7	586	9.7	858.3	5.9
7. Germany, F.R.	252	4.8	183	3,9	325	3.7	821.9	5.7
8. Australia ..	429	8.2	273	5.8	291	4.9	738.4	5.1
9. France ..	429	8.2	294	6.3	231	3.8	690.7	4.8
10 Burma ..	177	3,3	231	4.9	157	2,7	498.7	3.4
11. China	662	12.6	56	1.2	284	4.7	452.5	3.1
12. Singapore ..	104	2.0	79	1.7	126	2.1	405.0	2.8
13. Netherlands ..	46	0.8	70	1.5	100	1.7	380.3	2.6
14. Italy ..	38	0.7	52	1.1	139	2.2	275.2	1.9
15. Canada ..	62	1.2	106	2,3	71	1.1	264,4	1.8
16. Belgium ..	17	0,3	58	1,2	73	1.2	230,7	1.6
17. U.S.S.R. ..	112	2.1	72	1.5	131	2.	237.5	1.6
18. Hong Kong	8	0.2	25	0.5	44	0.7	213.3	1.5
19. Pakistan	220	1.2	274	5.9	272	4.5	172.2	1.2
20. New Zealand	12.9	,3	15.3	,3	23.4	,4	134.3	0.9
21. South Africa	30.5	,6	5.3	,1	9,6	,2	100,4	0.7
22. Sweden ..	25	0.9	59	1,2	33	0,5	106	0,7
23. Switzerland ..	15.3	,3	14.0	,3	22.2	,4	100.7	0,7
24. Malaysia ..	15.5	,3	15.5	,4	29.0	,5	100.4	0.5
25. Denmark ..	30.7	,6	18.7	,4	8,8	,2	51.7	0.4
Sub-Total ..	4,653.0	87.1	4,206,0	88,70	5,259,0	85,30	13,561,3	93,3
Others	598,0	12,9	439,0	11,30	748.0	14,70	1,052.3	6.7
Total (all countries)	5,251.0	100.0	4,645.0	100.0	6,007.0	100.0	14,613.4	100.0

Source Sri Lanka Customs Returns

Foreign Markets

UK emerged as the leading market for Sri Lanka's products in 1978, accounting for almost 8 percent of Sri Lanka's export earnings. China which in 1975 occupied top position as both importer and exporter had, in 1978, moved into second position as a buyer of Sri Lanka's products. Pakistan which was the chief importer of Sri Lanka produce in 1977, mainly because of her heavy imports of tea, had fallen into fifth position last year. USA retained third position as a market for Sri Lanka products while Japan moved up from sixth position in 1976 to fourth position last year. Other important markets for Sri Lanka were the Middle Eastern countries of Saudi Arabia, Iran, UAR, Iraq and Syria which took in a large volume of Sri Lanka tea. Among the other leading Western European markets were West Germany, Italy and the Netherlands while Poland and USSR were the only East European countries among the leading 25 buyers of Sri Lanka produce. Among the major 25 buyers and suppliers the country that recorded the most significant trade gap was India which imported products valued at only Rs. 110 million in 1978 but supplied Sri Lanka with goods to the value of Rs. 1,396 million.

During the first three months of this year USA was the chief market for Sri Lanka's exports accounting for 9.5 percent of the value of total exports, followed by Japan and U.K which had both taken 7.9 percent each of the value of our exports during this period.

TABLE 7. EXPORTS 1975, 1976, 1977 and 1978

THE 25 MAIN BUYERS OF SRI LANKA'S PRODUCTS IN 1978

	1975 Rs. m.	1975 %	1976 Rs. m.	1976 %	1977 Rs. m.	1977 %	1978 Rs. m.	1978 %
1. U.K.	311	7.9	465	9.7	528	8.0	1,038.5	7.9
2. China ..	460	11.7	481	10.0	434	6.5	955.6	7.3
3. U.S.A. ..	219	5.6	335	6.7	500	7.5	924.9	7.0
4. Japan ..	178	4.5	213	4.4	321	4.3	766.3	5.8
5. Pakistan ..	345	8.8	363	7.6	534	8.0	689.4	5.2
6. Saudi Arabia	94	2.4	122	2.5	175	2.6	626.9	4.8
7. Germany, F.R.	118	3.0	163	3.4	261	3.9	564.9	4.3
8. Iran	117	3.0	100	2.0	123	1.8	568.4	4.3
9. U.A.R. ..	121	3.1	101	2.1	304	4.6	559.6	4.2
10. Iraq	190	4.8	145	3.0	356	5.4	457.7	3.5
11. Italy	68	1.7	131	2.7	110	1.6	307.7	3.0
12. Netherlands ..	69	1.8	116	2.4	186	2.8	367.3	2.8
13. Syria	65	1.7	79	1.6	168	2.5	362.4	2.8
14. Canada ..	95	2.4	117	2.4	127	1.9	291.1	2.2
15. Singapore ..	50	1.3	143	3.0	98	1.5	278.0	2.1
16. Australia ..	110	2.8	129	2.7	199	3.0	254.8	1.9
17. Hong Kong ..	59	1.5	121	2.5	153	2.3	198.3	1.5
18. South Africa	121	3.1	141	2.9	201	3.0	201.4	1.5
19. U.S.S.R. ..	103	2.6	153	3.1	125	1.9	197.0	1.5
20. Poland ..	39	0.9	42	0.8	69	1.0	165.1	1.3
21. France ..	44	1.1	56	1.2	94	1.4	172.2	1.3
22. Switzerland ..	30	8	25	0.5	55	.8	151.5	1.2
23. New Zealand	34	0.9	42	0.8	68	1.0	127.8	1.0
24. India	2	.1	2	.1	10	.2	110.2	0.8
25. Belgium ..	13	.3	10	.2	29	.4	72.1	0.5
Sub-Total ..	3,055	76.72	3,795	78.30	5,228	76.64	10,409.1	79.70
Others ..	868	23.28	1,006	21.70	1,387	23.36	2,765.9	20.33
Total (all countries)	***3,923**	**100.0**	**4,801**	**100.0**	**6,615**	**100.0**	**13,175.0**	**10.00**

**Re-export of Rs.* 31.2 *mn. in* 1978. *Rs.* 22.7 *mn. in* 1977. *Rs.* 13.7 *mn. in* 1976 *and Rs.* 10.5 *mn. in* 1975 *are excluded.*

Source *Sri Lanka Customs Returns*

AGRICULTURE

WORLD FOOD SUPPLY SITUATION

Possibilities of a world food shortage in the 1980s has engaged the attention of a special body set up by the UN General Assembly in December 1977. The Committee's view is "already there are reports that levels of grain reserves now at a record will decline sharply by the mid-1980s due to less favourable harvests. In the case of crop shortfalls, there is therefore no guarantee of supplies precisely at the moment when food is most needed. Such a precarious situation cannot be allowed to threaten world security". The "wheat talks" (officially known as the UN Conference to negotiate an international arrangements to replace the existing International Wheat Agreement of 1971) have in the meantime resulted in a deadlock and this has been regarded as a serious blow to world food security since the new arrangements were intended to stabilize world cereal markets and establish a system of reserve stocks. With a view to closing the gap in world food security left by the suspension of the "wheat talks", the FAO's Director-General, Edouard Saouma, presented the following five-point plan of action at a recent meeting of the UN Committee and also called for replenishment of the International Emergency Food Reserve to ensure the target of 500,000 tons of cereal.

FAO's Five-point Plan of Action

*** All countries should adopt national grain reserve policies and set target levels for the size of their reserves. The reserves would be used for food security purposes, as opposed to commercial aims. Food surplus countries would also hold stocks against international shortage.**

*** The FAO Committee on World Food Security would establish guidelines for releasing stocks. Stocks would be used in the event of crop failure or natural disaster, or to help developing countries meet their food imports at reasonable cost.**

*** As many developing countries already have large food deficits, food donor countries are asked to increase their food aid commitments (from the legally binding level of 4.2 million to 10 million tons). FAO further recommends that commitments should be stepped up to 13 million tons by 1982 and 16 million tons by 1985.**

*** Both bilateral and multilateral aid should be increased to help developing countries create and maintain food reserves.**

*** Food security of developing countries should be promoted through collective self-reliance.**

What the impact of the UN Committee's meeting would be on the future world supply situation is difficult to assess. As the Committee's Chairman, Thorvald Stoltenberg emphasised, general agreement on the need to take measures does exist but *"The problem is . . . to transform this general consensus of opinion into concrete action"*.

Patterns of Growth in Children in Sri Lanka

Beatrice V. de Mel and Kamalika Abeyratne

Nearly one fourth of the babies born in Sri Lanka fail to reach the minimum of 2,500 grams at birth. On the other hand a study of the social (and nutritional) elites of this country have revealed, in this group, rates of growth comparable to those of the United States; but only up to 11 years of age. Within the country itself it has been found that the growth retardation prevalent in rural children between the age of 4 to 6 years was 16 times higher than that seen in children from private Montessori and Nursery schools in Colombo. These are some of the stark findings that come out in this concise and revealing survey of the patterns of growth in Sri Lanka's children, by Dr. Beatrice V. de Mel of the Department of Nutrition of the Medical Research Institute and Dr. Kamalika Abeyratne of Colombo's Lady Ridgeway Hospital for children. They emphasise that growth failure in our children is the result of a large number of interlinked factors and what is necessary is a long-term solution through an integrated programme, comprising reduction in family size, provision of better environmental conditions, immunization against preventable disease, nutrition education, continuous surveillance and supplementation where necessary.

Growth is the process in the human by which a single cell reaches full adult stature. This process requires not only "the building materials" but also energy for fuelling the various intricate chemical processes involved. These substances are the nutrients in the human diet. There are other factors involved in the rate of growth and the final stature reached, heredity being one of them; although the importance of this factor has been somewhat reduced by studies on immigrant populations, particularly the so called "small races" the Japanese and the Chinese resident in developed countries where in a generation or two the same stature as the Caucasian races is reached. Growth is not a uniform process throughout. There are periods when growth is very rapid and there are periods when it may be very slow or even quiescent. Growth is also not continuous throughout all parts of the body. At certain stages, certain organs and systems may grow faster than others and this gives rise to the characteristic change in form, illustrated in Fig. 1.

The most rapid period of growth, of course, is the intra-uterine, when the child grows in the mother's womb and starting as a single cell weighing 1-2 micrograms will reach a weight of 2,730 grams (average), an increase in size of two million times. Nearly one fourth of the babies born in Sri Lanka fail to reach the minimum of 2,500 grams. Failure of growth in this period may be due to a large number of factors. In some cases the baby is born before full term. In others, one cannot be certain because mothers are not sure of their dates. In some cases this failure of intra-uterine growth may be due to disease in the mother or to disease in the placenta which connects the circulation of the mother to that of the growing embryo or to disease in the baby. Unfortunately the largest proportion of underweight babies at birth in this country are due to failure of nutrition of the mother which means that she does not receive sufficient nutrients in her diet to meet both her needs and the needs of the child developing within her. This can be a cumulative effect affecting subsequent children more than the first one and even being passed on from one generation of malnourished and stunted mothers to the next.

It is clear that such babies who have suffered failure of growth during gestation, start life with a handicap which, in most instances, they are able to catch up on.

The next phase of growth occurs during the first year of life. Though this period is clearly a period of very rapid bodily growth it is also the period when the brain reaches its greatest rate of growth and it is, therefore, a period in which dramatic advances are made in physical and mental performance. Failure of growth during this period is likely to affect permanently the capacity of the brain. In addition, if this failure of growth is associated with malnutrition, resulting from overcrowding, large families, neglect and parental deprivation, there is likely to be permanent damage to the child's psychological responses to his environment.

The key to this phase of growth is breastmilk. Breastmilk is nature's food for the child. It provides all the nutrients in the correct proportions throughout, in addition to providing certain substances which are essential in the protection of the child from infections. Further, the physical contact that is an essential part of breast-feeding, undoubtedly leads to secure, confident, and well-rounded personalities ensuring a normal psychological development as the child grows. Except in the case of illness or grave inconvenience to the mother, there is no excuse for the use of poor artificial substitutes during this phase of growth, which, in effect denies the child of its birthright. Perhaps the best compromise that can be reached today is breast-feeding alone for 5-6 months, supplemented and later substituted by artificial feeding concurrent with a programme of weaning onto solids.

The next phase of growth carries the child from the end of the first year to the end of five years. Known as the preschool period, this is undoubtedly the most appealing phase of a child's growth. The child is learning to explore his environment, learning to walk and talk and is developing as a personality. Unfortunately this group in our country provides the highest number of severe cases of growth failure and the rate of sickness and death in our children is highest in the period of up to 3 years of age (see table). Growth failure in this age group may arise from several factors. The most important is the fact that in a large number of families children are expected to join the adults for their meals, taking what is for them unsuitable food in inadequate quantities in two or three instalments for

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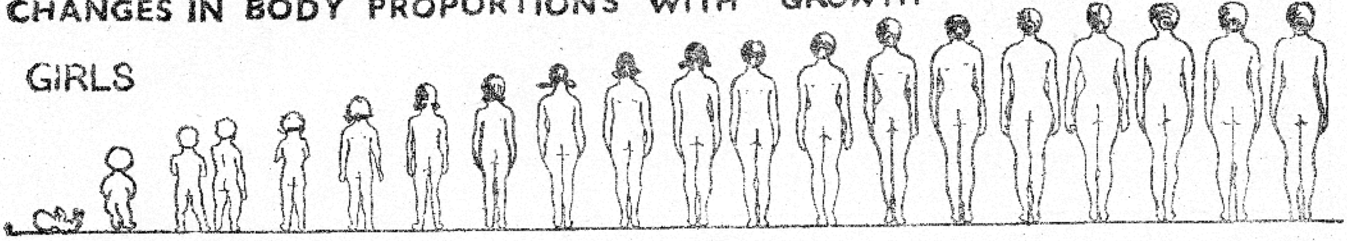
A study on the social (and nutritional) elites of this country have revealed rates of growth comparative to those of the United States (Harvard and NAS) but only up to 11 years of age. There is a fall off in growth in our children after this age leading to the difference in adult statures. This may be due to a genetic factor as this observation has been made in India.

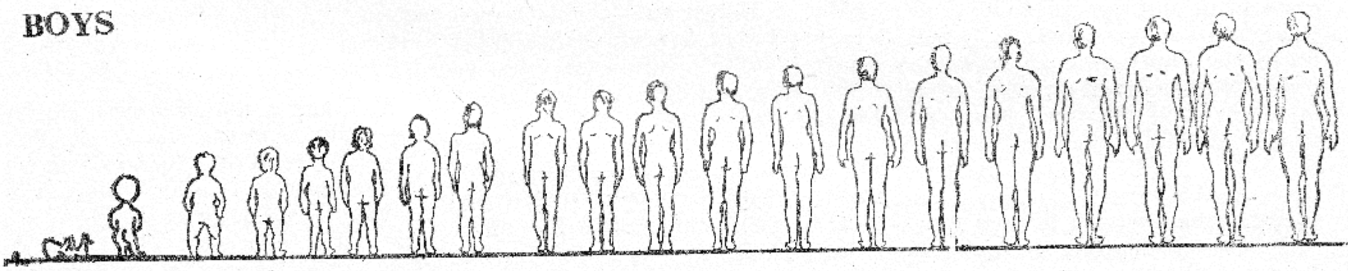
CHANGES IN BODY PROPORTIONS WITH GROWTH

GIRLS



		Birth	1	1½	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Height	(Sri Lanka)	50.0	74.0*	80.9	86.4	95.0	103.2	109.1	114.5	122.1	125.6	132.1	136.5	141.3	146.0	152.4	155.0	159.5	155.6	156.8	158.8
								109.2	115.6	119.4	124.5	128.5	134.6	141.6	148.0	153.-	153.7	155.6	[illegible]	158.1	156.9
	(India)		72.4*		79.9	87.1	84.5	101.3	107.3	113.0	117.9	122.5	128.1	133.4	138.3	144.5	148.1	150.0	15 0	152.1	151.6
	(America)	50.2	74.2*	80.9	86.6	95.7	103.2	109.1	115.9	122.3	128.0	132.9	138.6	144.7	151.9	157.1	159.6	161.1	162.2	162.5	162.5
Weight	(Sri Lanka)	3.2	8.8*	10.8	11.9	13.8	16.0	18.2	20.3	24.0	25.5	27.1	28.9	32.7	36.7	39.1	44.0	45.1	45.4	48.1	49.9
								18.4+	21.4	24.8	26.1	29.7	33.5	36.5	42.6	44.4	46.7	48.2	49.8	49.9	50.1
	(India)		7.7*		9.4	11.2	12.8	14.3	16.8	17.3	19.2	21.0	23.2	25.7	29.3	33.0	37.0	39.1	41.0	42.0	42.3
	(America)	3.4	9.8*	11.1	12.3	14.4	16.4	18.4	22.2	23.7	25.4	28.9	31.9	35.7	39.7	45.0	48.2	51.5	53.1	54.0	54.4

BOYS



		Birth	1	1½	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Height	(Sri Lanka)	50.6	74.5+	81.6	87.0	96.4	103.0	109.0	114.5	124.0	127.7	135.2	136.2	143.8	145.1	154.9	161.0	165.9	169.5	169.9	171.8
								109.2	115.1	121.3	125.1	130.8	134.0	137.8	143.5	151.1	156.2	161.9	167.0	170.1	169.5
	(India)		73.6*		81.8	88.6	95.8	102.2	108.4	114.0	119.8	123.0	128.8	133.3	138.1	144.0	150.3	156.6	160.3	162.4	163.5
	(America)	50.6	75.2*	81.8	87.5	96.2	103.4	108.7	117.5	124.1	130.0	136.5	140.3	144.2	149.6	155.0	162.7	167.8	171.6	173.7	174.5
Weight	(Sri Lanka)	3.3	9.1*	10.6	12.2	14.5	16.1	18.4	20.8	24.1	26.0	28.4	30.8	33.2	35.0	42.9	47.3	52.2	55.3	56.7	59.0
								17.5+	18.8	21.0	22.6	24.5	26.6	28.3	32.3	35.7	41.3	45.3	49.2	53.8	52.4
	(India)		8.3*		10.0	11.8	13.4	15.2	16.7	18.4	19.6	21.2	22.9	25.4	27.9	31.3	35.2	39.9	43.6	45.6	47.4
	(America)	3.4	10.7*	11.4	12.6	14.6	16.5	18.4	21.9	24.5	27.3	28.9	32.6	35.2	38.3	42.2	48.8	54.5	58.8	61.8	63.1

*DATA ARE THOSE OF THE 50TH PERCENTILE OF WEIGHT FOR AGE FOR ALL AND HEIGHT FOR AGE

+ 50TH PERCENTILE OF REPRESENTATIVE CHILDREN OF SRI LANKA INCLUDING THE MALNOURISHED - INDIAN THE SAME SAMPLING.

(PERCENTILES PROVIDE A MEANS OF QUANTIFYING THE VARIATIONS WITHIN A GROUP - IN THIS CASE THE HEIGHT AND THE WEIGHT FOR EACH AGE GROUP. ALL THE SAMPLES WITHIN ONE AGE GROUP ARE PLACED IN A 100 SEGMENTS IN ASCENDING ORDER. THE 5TH PERCENTILE WILL THEREFORE REPRESENT THE 5TH SEGMENT OUT OF 100; THE 50TH WILL REPRESENT THE 50TH SEGMENT AND ALSO THE MEDIAN).

the day. The other problem is that in the exploration of the environment children pick up a large number of uninvited and unwelcome guests in the form of worms and other intestinal parasites who, living in the child's gut, consume the child's food. In cases where the nutrient intake is marginal, the presence of large numbers of intestinal parasites may tip the scales towards severe growth failure.

Chronic or recurrent infections, such as those of the bowel, causing diarrhoea, or those of the throat and lungs may debilitate a child to the point when its nutrient intake is not sufficient to meet the increased demands of fighting repeated infections. For example, in a child on a marginal nutrient intake, an apparently simple disease like measles can prove to be fatal or lead to a severe form of malnutrition known as Kwashiorkor. School-going children starting from 5 years may be considered in two groups, primary school ending at 12 years, and secondary school thereafter.

The problems of the school child are mainly those of increased demands of energy to meet the greater physical effort of attending school. In addition, some children living far away from their schools may be affected by the long single session, and its late termination leading to their having their first meal for the day at 2 or 3 in the afternoon. School-going children are available for programs aimed at detecting growth failure due to lack of nutrients and also can be reached by programs aimed to supplement the nutrition intake. The problem, therefore, is not as severe as in the preschool group (see table).

One of the features of growth failure and a lack of nutrients in school-going children is that they are listless and unable to concentrate and therefore unable to make use of the excellent free educational systems provided by the State. This is a comment that has been often made by teachers of remote rural schools. This may be an hitherto unidentified cause of the poor academic performance of this part of the country.

The next period of adolescence marks a very important event in growth and development, the passing of puberty, after which the acquisition of the ability to reproduce marks the final ascent to adult status. Boys start off by being heavier and taller than girls at 6 years and are caught up by the 10th year and passed in both height and weight by girls but only till the 13th year. In any case the pre-pubertal growth spurt is very dramatic. Studies in Caucasians have shown that early growth spurts indicate early puberty. The picture in Sri Lanka is not as clear but in females the menarche is reached 2-3 years earlier in girls with an urban (well-to-do) background than their shorter and lighter rural counterparts.

Growth failure leading to an inability to achieve full physical and mental stature can be a socio-economic handicap to the individual and a financial liability to the State, not only from reduced productivity, but also from the need to spend on medical care for the undernourished and social services to those who have been disabled thereby. It is therefore necessary to have the means of detecting growth failure early enough to do something about it. These are based on bodily measurements (anthropometry) such as height, weight and circumference of head, chest and left arm. When these individual measurements are compared against a norm, cases of retarded growth can be detected. There is a great deal of controversy in which measurements should be used and which norms should be applied. It is absolutely essential that whatever measurements are made and whatever norms are applied must be capable of being made accurately and interpreted with the simplest of equipment by paramedical field personnel, and they should be intelligible to the general public. The norm currently available in this country is based on weight in relation to age, and forms the basis of growth cards currently used in the CARE-sponsored Thriposha Program which includes nutritional food made exclusively from indigenous foodstuffs fortified with a vitamin/mineral additive being supplied to the vulnerable groups of infant children, pregnant and lactating mothers, pre-school and primary school children.

In 1936 Lucius Nicholls commented that there was such a difference in stature between the urban rich and rural poor of this country as though they were of two different races. More specifically, in the Sri Lanka Nutrition Status Survey in 1975/76 an official of the Department of Health Education and Welfare, United States commented that the prevalence of growth retardation in rural children between the ages of 4 to 6 years was 16 times higher than that seen in children from private Montessori and Nursery schools in Colombo. A study on the social (and nutritional) elite of this country have revealed rates of growth comparative to those of the United States (Harvard and NAS) but only upto 11 years of age. There is a fall off in growth in our children after this age leading to the difference in adult statures. This may be due to a genetic factor as this observation has been made in India.

The State, in all Third World countries, has a special function in the prevention of severe forms of growth failure in its population. Various programs of food subsidies have been a feature of life in this country since the war.

Subsidies have been mainly in the energy-giving foods rice, flour and sugar and to a lesser extent in the "building materials" i.e. milk, pulses and dried fish. These subsidies were aimed more at the working adult and the needs of children were served by special programmes aimed at identified groups, communities and areas at risk and providing them with free supplements to their diet ranging from the buns and skimmed milk of the past to Thriposha and biscuits. Food subsidies are being replaced by a similar supplementary programme of food stamps for all members of deprived households.

On the whole, growth failure is a result of a large number of interlinked factors. Overcrowding, overlarge families, underemployment and poor sanitation and housing leading to intestinal parasitosis and recurrent infections, all of which together lead to diminish the value of the marginally adequate food available to such groups. The only long-term solution is an integrated program comprising reduction in family size, provision of better environmental conditions, immunization against preventable diseases, nutrition education, continuous surveillance and supplementation where necessary.

The Frugality Phenomenon

More and more Americans are turning towards a life-style that is "outwardly simple and inwardly rich"

Carter Henderson

There is occurring today a deep change of attitudes about what is the desired "good life" in the Western countries. The most advanced market-oriented Western country, namely U.S.A. seems to have changed; away from the earlier attitude of demanding more and more worldly goods, to a less materialistic one. America, and the Western world generally, was built on the acquisitive drive and the Protestant ethic exemplified at times by such catch-words as "Keeping up with the Joneses". The accompanying article by Carter Henderson, co-director of the Princeton Center for Alternative Futures, which we reproduce with the courtesy of Bulletin of the Atomic Scientists, A Magazine of Science and Public Affairs (copyright, Educational Foundation for Nuclear Science, Chicago, Illinois), summarises some of the emerging new American attitudes.

This turning back from some of the assumptions of Western industrial civilisation of the last 200 years is of significance not only to America, but also to the Third World, as well as to the Socialist countries. The goal of the Socialist countries whether it was under the Leninist slogan of Socialism equals Soviet Power plus Hydroelectricity or under the post-Maoist slogan of the "four modernisations" has always implied a philosophy of following, catching up and overtaking the West, in material production. The Socialist world has rejected some—though not all—of the social institutions of production in the West but not its products. Western products whether they be cars, aeroplanes, colour television or smart clothes has tantalized Eastern Europe. American rejection of an acquisitive trend has therefore a strong impact on some of these follower countries (especially, for instance, countries that have overtaken the West, as the G.D.R. has today with a higher standard of living than Great Britain). For the Third World the same holds true; post-independence rhetoric has always evoked an image of gaining part of the West's supply of material abundance. A reversal and partial denial therefore of a model of technological development in the West is of tremendous significance for "follower" countries, whether they be the Third World or the Socialist ones.

The question one has to pose is whether symptoms of the US today are a sign of a society in decline, a spent-out force or is it still the torch bearer of future technology, a "technology" very different from what has been hitherto accepted.

In the accompanying piece Manel Tampoe, a journalist reputed for her serious and thought-provoking commentaries on social issues, and particularly on non-renewable-resources and changes to the environment, looks at this same situation from a local angle and poses the issue "A New Economic Order or Human Extinction". She maintains that "the progressive or developed societies of the future will have the characteristics of the present 'under-developed' societies".

What would happen if consumers decided to simplify their lives and spend less on material goods and services? This question is taking on a certain urgency as rates of economic growth continue to decelerate throughout the industrialized world and as millions of consumers appear opting for more frugal life-styles.

The Stanford Research Institute, which has done some of the most extensive work on the frugality phenomenon, estimates that nearly five million American adults are pursuing lives of "voluntary simplicity", and double that number "adhere to and act on some but not all" of its basic tenets.

The frugality phenomenon first achieved prominence as a middle-class rejection of high consumption life-styles in the industrialized world during the '50s and '60s. In *The Silent Revolution*, Ronald Inglehart of the University of Michigan's Institute of Social Research examined this experience in the United States and 10 Western European nations. He concluded that a change has taken place "from an overwhelming emphasis on material well-being and physical security toward greater emphasis on the quality of life", that is, "a shift from materialism to postmaterialism".

Inglehart calls the '60s the "fat years". Among their more visible trappings were the ragged and flamboyantly patched blue jeans favoured by the affluent young. Most of the retreat from materialism, however, was less visible. Comfortably fixed Americans were going without, making things last longer, sharing things with others, learning to do things for themselves and so on. But while economically significant it was hardly discernible in a U.S. Gross National Product climbing vigorously toward the $ 2 billion mark.

Yet as the frugality phenomenon matured—growing out of the soaring '60s and into the sombre '70s—it seemed to undergo a fundamental transformation. American consumers continued to lose faith in materialism and were being joined by new converts who were embracing frugality because of the darkening economic skies they saw ahead. Resource scarcities, soaring energy prices, persistent inflation, high-level unemployment, balance-of-trade deficits, and the declining value of the U.S. dollar on foreign exchange markets forced consumers to look to their own resources. The one device which seemed most promising, the one over which they had the most control, was frugality-learning to live with less in a world where a penny saved was still a penny earned.

The Western democracies are now "in the midst of a revolution that we have only begun to perceive", former Secretary of State Henry Kissinger told a 1977 meeting of business, political and education leaders in Washington, D.C. The next decade he added, will decide whether the industrial democracies will be able to manage their economic policies and maintain social peace "in the face of a probably lower long-term growth rate in the1980s".

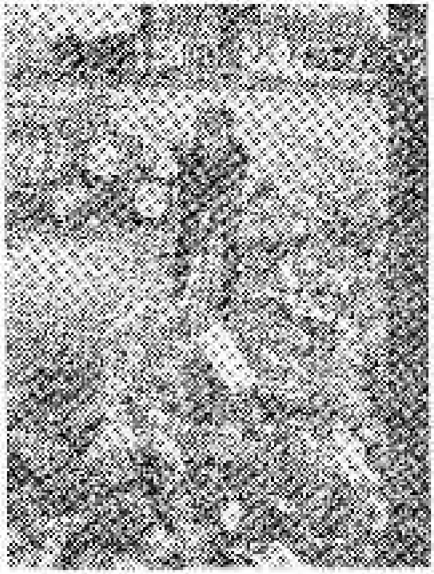
According to the Stanford Research Institute, the nearly five million Americans living lives of voluntary simplicity appear to be predominantly young (between the ages of 18 and 39), evenly divided between the sexes, almost exclusively white, from middle or upper class backgrounds, exceptionally well-educated, politically independent, largely urban and from households where both wife and husband earn incomes. The reasons these men and woman have chosen simple life-styles include the the desire to live in a way that is "outwardly simple add inwardly rich", a "preference for smallness' as opposed to "complexity, anonymity, artificiality, dehumanization manipulation and wastefulness." Theirs is an "insistence upod living as naturally as possible" and a desire "to free the inner self for exploration" and to better cope with the "new scarcity". The Stanford Institute authors projected that Americans pursuing lives of fully voluntary simplicity would grow from 5 million to 25 million in 1987, and to 60 million in the year 2,000; while those opting for partial voluntary simplicity lifestyles would be from 10 million to 35 million in 1987, and 60 million by the turn of the century.

Paradoxically, the authors suggest that this growth in voluntary simplicity stands a good chance of being "perhaps the fastest growing consumer market of the coming decades". The reason for this paradox is that "the person living the simple life tends to prefer products that are functional, healthy, non-polluting, durable, repairable, recyclable or made from renewable raw materials, energy-cheap, authentic, aesthetically pleasing, and made through simple technology.

The growth projected for both the number of Americans pursuing lives of voluntary simplicity and the size of the new consumer markets this would generate, presupposes (1) a continuation of the pressures currently pushing people toward more frugal lifestyles such as the prospect of chronic resource shortages, (2) that those choosing these lifestyles will find them satisfying, and (3) that America's mass-production/consumption economy will remain strong enough to avoid a severe depression and to maintain decent living standards.

Many of the Stanford Research Institute's basic contentions about the trend toward more frugal lifestyles are supported by a public opinion poll recently conducted by Louis Harris and Associates Inc. on the subject of America's unlimited economic growth.

"The American people", said Harris, "have begun to show a deep skepticism about the nation's capacity for unlimited economic growth, and they are wary of the benefits that growth is supposed to bring. A significant majority places a higher priority on improving human and social relationships and the quality of American life than on simply raising the standard of living."



CHOPPING WOOD FOR FUEL — a practice this American's family had abandoned many generations ago is now back in vogue, with more and more Americans turning towards a life-style that is 'outwardly' more simple than earlier and certainly more frugal. A recent estimate indicates that nearly 5 million American adults are pursuing lives of "voluntary simplicity" with the new middle-class rejection of high-consumption life-styles in the industrial world. Most of these nearly 5 million Americans living the 'simple life', are said to be young, idealistic and imaginative and appear to be displaying once more a mentality of frugality and hard work that has been ingrained in their national character from the days of the founding of the American nation.

Among the Harris survey's more significant findings were that a large majority of the American public now prefers:

"Teaching people how to live more with basic essentials" than on "reaching higher standards of living" (79 percent vs. 17 percent);

"Learning to get our pleasure out of non-material experiences," rather than on "satisfying our needs for more goods and services" (76 percent vs. 17 percent);

"Spending more time getting to know each other better as human beings on a person-to-person basis", instead of "improving and speeding up our ability to communicate with each other through better technology" (77 percent vs. 15 percent); and

"Improving those modes of travel we already have" rather than "developing ways to get more places faster" (82 percent vs. 11 percent).

> "Taken together, the majority views expressed . . . suggest that a quiet revolution may be taking place in U.S. values and aspirations. Some of these attitudes reflect the energy crunch and the realization that the supply of raw materials is not boundless; others are a legacy of all those ideas young people pressed for in the 1960's that have now begun to take root in the 1970s."

In America frugality and hard work have been ingrained in the national character since the Pilgrims bequeathed to America the Puritan ethic. Since then, we have been continually reminded of the joys of simple living and the discomforts of its antithesis by a succession of such social commentators as Henry David Thoreau (*Walden*), Thorstein Veblen (*The Theory of the Leisure Class*), David M. Potter (*People of Plenty*) and Staffan Linder (*The Harried Leisure Class*). Only very recently, however, have we begun to believe that the transition from baroque to basic consumption patterns may be essential to national economic survival.

In examining frugality, and its potential as a resource for national economic survival, it is useful to look at the difference between those Americans currently turning to more frugal lifestyles and those who have been living in what is generally described as the "counterculture".

While the two groups differ in many ways, the most significant difference would appear to be that frugal Americans largely accept the values of the industrial culture while the counterculture Americans do not. The essence of the counterculture lifestyles is its commitment to unhook from the consumption-driven mainstream economy.

The fact that more and more Americans are choosing to live lower-consumption lifestyles is, of course, attracting attention throughout the country. A lively family of publications such as *Mother Earth News*, *Whole Earth Catalogue*, *Rain*, *Prevention* and *Organic Gardening* are showing hundreds of thousands of readers how to actually create more self-reliant, wholesomely simple lifestyles. Should these readers wish to pursue any particular aspect of frugal living they can do so consulting hundreds of "New Age" books.

Groups pursuing New Age lifestyles are springing up all over the United States. A recent issue of the counterculture magazine *Green Revolution*, for example, examined more than 200 communities, most of which got their start in the late 1960s or early 1970s. Begun in private homes these communities are overwhelmingly populated by young people in their 20s and early 30s.

The emphasis on sharing and self-reliance in the growing New Age movement arises in part from its adherents' belief in the philosophy of "right livelihood" which might be broadly defined as engaging in work which does not threaten our human species, the planetary environment which sustains us, or future generations whose lives will be largely shaped by what we do today.

What seems to be happening in America and the other market-oriented democracies is that a "counter-economy" more interested in psychic than material income, is taking firm root within our mainstream economy whose vitality is dependent on endlessly growing production and consumption.

Those moving into the counter-economy are apparently convinced that the mainstream economy is now encountering limits to its previous exponential growth, and that those whose lifestyles are attuned to *enough* rather than *more* will be far better equipped to get through the wrenching transition many see ahead.

Finally and perhaps most important, is the suspicion now shared by so many people in the industrialized world that fulfilment on this planet cannot be found in the endlessly increasing consumption of material goods (even if this were possible in the future), but only through the life of the mind and spirit as taught by all the world's great religions.

Whether the frugality phenomenon represents a fundamental shift in Western economic attitudes, or something more transitory, remains to be seen. What does seem clear, however, is that the appearance of millions of Americans, Canadians, Britons, Swedes and others willing to live more frugal lives could not have come at a more opportune time.

A New Economic Order or Human Extinction

Manel Tampoe

The clamour of the Third World for a New International Economic Order has so far produced little concrete benefit, and judging from the despatches from Manila, the Fifth UNCTAD Meeting in Manila in May will not yield tangible dividends either. But a New International Economic Order is being framed for the human community chiefly at Nature's instance. It is still a far-off cloud on the horizon and its configuration is yet realised chiefly as prophetic speculations by sensitive western thinkers like Paul Ehrlich, Geoffrey Barraclough and Robert Heilbroner, who are dubbed the Writers of the Apocalypse because they foresee the end of the present industrial society.

These speculations should concern Third World countries, the majority of which are currently emulating western models of development, because it appears that the model will soon be declared obsolete. But what is exciting is that these speculations, if properly analysed, might offer the outlines of a New International Economic Order which will virtually reverse the roles of the 'developed' and the 'underdeveloped'.

In his '*An Inquiry into the Human Prospect*' a provocative treatise which even his critics find free of the over-simplifications that mar much of similar writing, Heilbroner declares that 'the values of an industrial civilisation, which has for two centuries given us not only material advance but also a sense of elan and purpose, now seem to be losing their self-evident justification". Besides such disturbing social manifestations as the rejection of materialistic values by the educated youth in these countries whose protest has taken the form of drug addiction and hippie style withdrawal, there is the the growing awareness that it will not be possible to sustain the trend of economic growth for very much longer.

This is a serious predicament because the concept of unlimited growth is the key pivot of western industrial systems both, capitalist and socialist. It is depended on to ensure better and better standards of living for high consumption societies, defuse the tensions between the North and the South over the unequal distribution of international wealth and keep the developed countries ahead of the poorer ones in the economic race.

Two significant events triggered off the new thinking. The Arab oil embargo forced the industrialised countries to recognise their extreme vulnerability in respect of energy and, by extension, raw materials. The other perhaps more fundamental reason followed from the findings of the Club of Rome ecologists which were published under the title '*Limits to Growth*' in 1974. These represent some of the most far-reaching insights achieved in the 20th century and demonstrate that the parameters of exponential growth are ultimately regulated not by Techno-Scientific Man as he had so arrogantly assumed during the last two centuries, but by all-embracing Nature.

They compelled Man to recognise that he is also dependent on the 4 great biological systems — fisheries, forests, grasslands and croplands —for both food and raw materials; that there is a definite limit to 'human management' and 'human interference' and furthermore that the activities of Industrial Man have in many areas impinged dangerously on the natural limits so that the danger signals are already on.

Extrapolating from environmental, social and cultural sources, Heilbroner sums as follows:

> "Under any and all assumptions one irrefutable conclusion remains. The industrial growth process, so central to the economic and social life of capitalism and western socialism alike will be forced to slow down, in all likelihood within a generation or two and will have to give way to decline thereafter".

One of Heilbroner's best insights is that the future will be shaped not by economic rationalisations but the human capabilities for political change among various groups. Concepts like World Government might be theoretically desirable but fundamental human traits militate against their acceptance. National identification is the extension of a deep-lying human need for a child to identify with its family during the early years of its life. Although the capacity to empathise widens, there is in every known culture a limit beyond which this impulse to identify is blocked, and this demarcates those within a society from those beyond it. In this way nation-states, often with the most heterogeneous populations serve as psychologically valid surrogates of the family in childhood.

The other important "political aspect of human nature" is the trait of obedience which is easy to locate in the four years of experience and is expressed in adult behaviour as the normal willing acquiescence of men in the exercise of political authority. Heilbroner concludes with great reluctance that the implication of this recognition is:

> "that the passage through the gauntlet may be possible only under governments capable of rallying obedience far more effectively than would be possible in a democratic setting",

Making the vital futurological projections Heilbroner says:

> "The human prospect is not an irrevocable death sentence. It is not apocalypse or doomsday toward which we are headed, although the risk of enormous catastrophies exists. The prospect is better viewed as a formidable array of challenges that must be overcome before human survival is assured and that can be overcome by the saving intervention of nature, if not by the wisdom and foresight of man. The death sentence is therefore better viewed as a contingent life sentence—one that will permit the continuance of human society, but only on a basis very different from that of the present, and probably only after much suffering during the period of transition.

> "What sort of society might eventually emerge? I believe the long-term solution requires nothing less than the gradual abandonment of the lethal techniques, the uncongenial ways of life, and the dangerous mentality of industrial civilisation itself. A few elements of the post-industrial society can be discerned.

> "The societal view of production and consumption must stress the parsimonious, not the prodigal, attitudes. The resource consuming and heat-generating process must be regarded as necessary evils, not as social triumphs, to be relegated to as small a portion of economic life as possible. This implies a sweeping reorganisation of the mode of production in ways that cannot be foretold, but that would seem to imply the end of the giant factory, the huge office, perhaps of the urban complex.

> "It is therefore possible that a post-industrial society would also turn in the direction of many pre-industrial societies—toward the exploration of inner states of experience rather than the outer world of fact and material accomplishment. Tradition and ritual, the pillars of life in virtually non-industrial societies, would probably once again assert their ancient claims as the guide to and solace for life. It is likely that the ethos of "Science" so intimately linked with industrial application would play a much reduced role and that the post-industrial society would witness the waning of much of the "work ethic" that is intimately entwined with our industrial society".

The future is not totally predictable but there are many signs such as the recession that the world economy has not been able to shake off for the past several years and the oil troubles caused by the establishment of an anti-western regime in Iran that indicate that these speculations provide at least one set of distinct possibilities.

Third World strategies for future action are being framed without taking these projections into consideration at all as though continuing economic expansion is one of the eternal verities. This time-lag in ideas has been a serious Third World weakness that has confounded most of our development efforts. What is of fundamental importance here is that the post-industrial societies envisaged by Heilbroner incorporate the main features of traditional societies in the Third World — economical resource extraction and consumption which is linked with their basically non-acquisitive character, and stress on the exploration of inner states of experience rather than the acquisition of material wealth and power. The implication is that the progressive or developed societies of the future will have the characteristics of the present 'underdeveloped' societies.

Should we or should we not incorporate these possibilities when we frame our strategies for the coming decade? We shall have to make our own reassessments of concepts such as 'growth' and 'resource consumption' and realise that parsimonious resource-use within our societies at present covered by terms such as 'underdevelopment' have great survival value and that consumerism and rising material aspirations are dangerous values to encourage in our populations.

In the international field it has been admitted by the advanced countries that their motive for encouraging growth in the developing countries is that we may further serve as markets for manufactured products. But industrial growth in the Third World is indirectly blocked by protectionist policies. If we persevere with growth strategies inspite of the danger signals that are now clearly showing we shall share, or more probably take the brunt of the collapse when it comes especially because weapons threats may be used to pressurise us into impossible loan repayments. If we adopt 'exportled Growth strategies' we will only be making our raw materials available for growth in the industrialised countries till our resources are also consumed.

The global market is the mechanism that makes the 'Present Economic Order' possible and it is the instrument that perpetuates industrial growth which is bringing humanity close to the brink of disaster. We cannot compel the industrialised countries, either capitalist or socialist, to make concessions but we can make a concerted move to consider withdrawing ourselves from the global market because our societies are still largely pre-industrial and can survive the wrench. This is perhaps one way in which we might assist nature to achieve a New International Economic Order and also ensure the continuance of human civilisation.

TRIVENI: Science, Democracy and Socialism

A. Rahman, Indian Institute of Advanced Study, Simla, 1977

Susantha Goonatilake

One of the hopes of development in the newly-independent countries was the use of science and technology for increases in production. The new millenium which seemed to be at hand in the rhetoric of thirty years ago when independence was either granted or proclaimed in many Asian countries had, as an implied central theme the widespread use of science and technology. One of the countries that emphasised — at the very highest political levels — from the earliest post-independence times, the need for sponsoring science and technology was India; (A contrast we should note in parenthesis, to the case of Sri Lanka which has yet to see the type of sponsorship which was given by Nehru 30 years ago in India). As a consequence India today is reputed to have the third largest scientific and technical manpower pool in the world, as well as possessing scientific and technological capabilities in almost every point in the science/technology spectrum. Yet, Indian per capita incomes and life expectancy of the population remain at a low level whilst a majority of the population is still illiterate.

Prof. Rahman's book is a foray into this territory of the interconnection of science on the one hand and society on the other. He subtitles his book Science, Democracy and Socialism implying this inter-connection and also indicating his value bias towards democracy and socialism. Prof. Rahman's study is largely on India but the lessons he draws have validity for many other Third World countries. Prof. Rahman is the Head of the Council for Scientific and Industrial Research which oversees science policy in India and this book is a collection of lectures given by him at the Indian Institute of Advanced Study at Simla.

His book deals with the roots of science in both the western tradition and the Indian one. In the former case he goes back to the times of the Greeks and the arguments forwarded by the Ionians and Epicureans on behalf of experimental and rational knowledge. On the Indian side he takes the example of the Carvaks and their devastating critique on the myths and superstitions of their time and he describes the Carvaks sponsorship of a materialist view of the world. He discusses the social context within which these two scientific-materialistic approaches grew and interacted in the two countries of the ancient world.

That was, as it were, the "scientific" world that was, in the East and West millenia ago. But modern science arose more recently within the crucible of Renaissance Europe and Rahman traces this rise within the breakdown of medieval society and the associated social movements. In this discussion he traces the impact of the growth of particular ideas and viewpoints within the context of the changing socio-economic structures brought about by emerging capitalism. With this background of the growth of early science in the West Rahman also describes the transformation of the scientific movement to almost a social movement in more recent times. Events subsequent to the First World War and the later conscious attempt to foster science by governments — the experience of the Soviet Union being the first such example — were crucial to this.

But the importance to the Third World is in the interaction of this science that grew within European parameters with the developing societies. In tracing the problems of contemporary India Prof. Rahman goes back historically and traces the growth of scientific viewpoints within the medieval period-after which period the European impact became significant. Although in India secular science and technology was overshadowed by religious philosophies he notes important technological developments during the medieval period like the development of the techniques of grafting in fruit culture, developments in textiles and architecture and several innovations in the 18th century giving rise to sophisticated armaments like the screw cannon and the multi-barrel gun.

The modern period of Indian science begins largely with the arrival of the British whereby Rahman notes a process of development occurred "to make the culture, economy and science and technology satellitic to the culture and economy of Britain". He identifies this artificial grafting as being the major problem of Indian science then and afterwards. The fact that the implanted science and technology grew up to solve problems of a different social and cultural milieu continued to deform the development of Indian science, (a number of the books that were used in teaching for example being quite often irrelevant). He identifies this externalisation of the value systems of science and technology away from India and the consequent isolation of the science and technology system from the society as being key aspects of the problem of science in India.

His view on science and technology, as it exists today in India, is that it is a relic of cultural domination by the West and further that a continued growth of "satellitic science, satellitic to the conceptual, theoretical and practical development of Europe and U.S.A." is maintained in India. In the name of transfer of technology he identifies the transfer of junk technologies at exorbitant cost to the

Third World and he asserts that "the experience of over three decades in India has clearly indicated that lack of development of indigenous R & D and import of know-how and technology, instead of helping in the rapid industrialisation, puts the clock back through increasing the dependence on advanced countries."

His prescription is for the growth of alternative technologies not in the sense of inferior technologies but sophisticated technological systems fitting into the local milieu. He identifies biological engineering and current trends in microbiology as being specific areas for development of alternative systems. He also calls for the freedom of expression of scientists "to raise and discuss issues without fear of reprisal by limited, narrow sectoral interests" which he identifies as of particular significance for scientists working in industry and government agencies.

Triveni is an important work in the growing literature of science and technology in the Third World. Rahman's approach is global and historical and reminiscent of what Bernal did for the study of science and technology in the West in the 1930's and of what Kosambi did a few decades ago for the study of Indian history. The book is not without its faults. The style is somewhat jerky and one wishes that adequate reference was also given to other work (though small in number) that has been done in this genre. One also notes the underlying definition of an almost mechanistic view of science which does not take into account the non-mechanistic nature of reality being presented, say, in today's particle physics. It also does not pose questions about how far alternative sciences have been developed, in say countries such as the Soviet Union; for that matter whether countries such as the Soviet Union are in fact developing sciences as imitative as those in the Third World. However, these omissions should not cloud the fact that Prof. Rahman's book would remain, in the years to come, an important and even a necessary introduction to the problems of science and developing societies.

How the Other Half Dies
The Real Reasons for World Hunger

Susan George. Penguin Bks. Ltd. 1976

Ivan Ribeiro

During the last two years, grain stockpiling attained the level of the 1960s. These stocks, which are not considered by the main producing countries as reserves but rather as surpluses, have caused a significant fall in the level of international prices. As a result, the farmers in some of those countries started to reduce their production, arguing that the prices are not remunerative; and the Carter Administration is inclined, among other measures, to return to the policy of "land freeze" adopted until 1973. The reader is certainly aware of the meaning of this policy: to adopt a set of incentives and subsidies to restrict the area sown by grain.

Meanwhile, according to FAO's estimates, there were about 500 million hungry and undernourished people in 1970, and this number is expected to increase by nearly two-thirds by 1985. The comprehension of this paradoxical situation (grain surplus and deliberate reduction of production versus people starving) and the study of the ways to resolve it can be considered crucial to our time. Within this context, Susan George's book can be considered a valuable contribution.

The author argues that "the food crisis has too long been presented as the result of nameless forces and, so to speak, in the passive voice. Such and such happens, this or that occurs, but there are no living, visible actors on the stage. "George intends to identify who (or what) is acting and to name the names clearly, having as premise that "famine, hunger and poverty are not inevitable, but are caused by idenfiable forces within the province of rational human control".

Beyond the reach

With this aim, the author has assembled a remarkable amount of information and carried out a penetrating analysis of the activities of some of the institutions that are supposed to deal with poverty and hunger in the world, namely the United Nations and some of its agencies and the World Bank. The author was also concerned with the multinationals dedicated to agribusiness and to other subjects connected to the problem of hunger as, for example, the population myth, technology and the green revolution.

George's analysis of the World Bank is interesting and stimulating. On the basis of a very good documentation, she analyses whether the Bank can be considered as a developer. She demonstrates that the "bankable" approach still prevails as the basic element to determine the effectiveness of a project and shows that the projects, as a rule, still remain enclaves, whose effects are beyond the reach of, and not necessarily related to, the country as a whole and to the rural poor in particular. The way the Bank deals with the problem of agrarian reform and its possible role in improving the living conditions of the peasants is a special point of the author's focus

Quoting some Bank documents, George shows how its recognition of the fundamental role agrarian reform can play in reducing poverty and hunger in rural areas is not accompanied by concrete support and incentive. On the contrary, she maintains that it has happened that when a country expanded a process of agrarian reform on the basis of a law passed in Parliament (Chile during the Popular Unity Government), the Bank decided to withdraw all financial help to that country.

As regards FAO, George studied basically two aspects of its activities, the Industrial Co-operative Programme (ICP) and the Investment Centre (mainly the FAO Bankers Programme). Her conclusions are very interesting. According to her, FAO, within the whole UN system, is unique in its integration of both multinational industry and commercial banks into its official structure. After disclosing some positive and negative aspects of ICP, she asks whether this FAO activity is really necessary when there is another department in the Organization (the Agricultural Services Division) capable of providing assistance to developing countries in search of food industries. Concerning the FAO Bankers Programme (which includes fifteen major Western banks), she criticizes the prevalent "bankable" approach and the excessive placement of loans to food-exporting activities, disregarding production for the local population.

The Real roots

George ends her book with two chapters entitled respectively "What can they do" and "What can I do". In the former by 'they' she means those ill-defined groups in positions of power who are supposed to be able to alter the status quo), the importance of alternative food sources, immediate food aid, the quick implementation of a World Food Security System, the creation of an early warning system and investment in agricultural development (but not following the "bankable" approach and not without actual income equalization effects) is stressed. Finally the importance of land reform in the context of planned action against dependence in the developing countries is pointed out. In the next chapter, attention is called to the need of organizing people at all possible levels, with the aim of studying the actual reasons and causes of hunger in the world and, simultaneously, carrying out concrete actions destined to overcome it.

These are, in synthesis, the basic topics dealt with in this well-documented, courageous and helpful book. It would not be exaggerating to say that it will certainly help the reader to improve his knowledge of the real roots of the misery and starvation that affect hundreds of millions of people in developing countries.

However, it is necessary to mention that the book was written in a very personal and excessively colloquial style that some how reduces its effectiveness. George sometimes presents her reasoning in a very linear way, hampering a better understanding of the issues under consideration.

Notwithstanding these few minor shortcomings, this is an important book and should be read by everybody concerned with starvation in the world.

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